

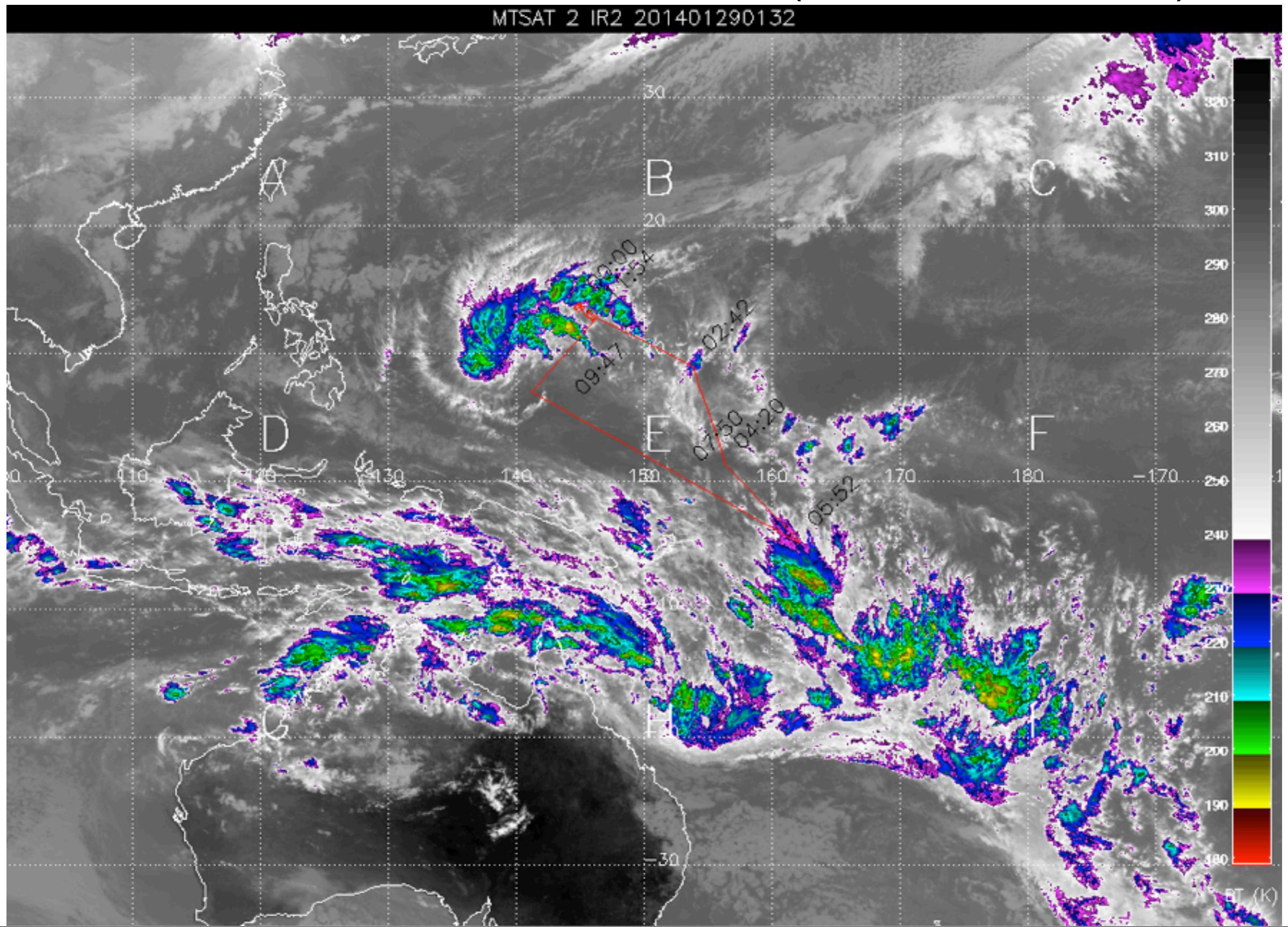
metbrief: 2014-01-29

(next planned flight 2014-01-30 Thu or 2014-01-31 Fri)

- 01-30 THURSDAY
 - precip and high winds Thu until 10AM make it unfavorable for take-off
 - precip tapers off but winds strengthen (25-30 knot Ely winds) Thu AM to noon
- 01-31 FRIDAY
 - dry air moving over Guam
 - favorable conditions for take-off and landing
- 02-01 SATURDAY
 - weak convection system moving in, but (lack of) upper-level moisture indicates convection not too deep
- en route conditions
 - cold Ts (< 187.5K), high (> 55kft) tropopause east of flight track
 - broad region of high clouds & precip south of Guam in SH tropics
- outlook
 - active convection south of 5N persists
 - weak MJO continues (very little eastward propagation?)
 - warmer 100mb T over (and east of) Guam next week

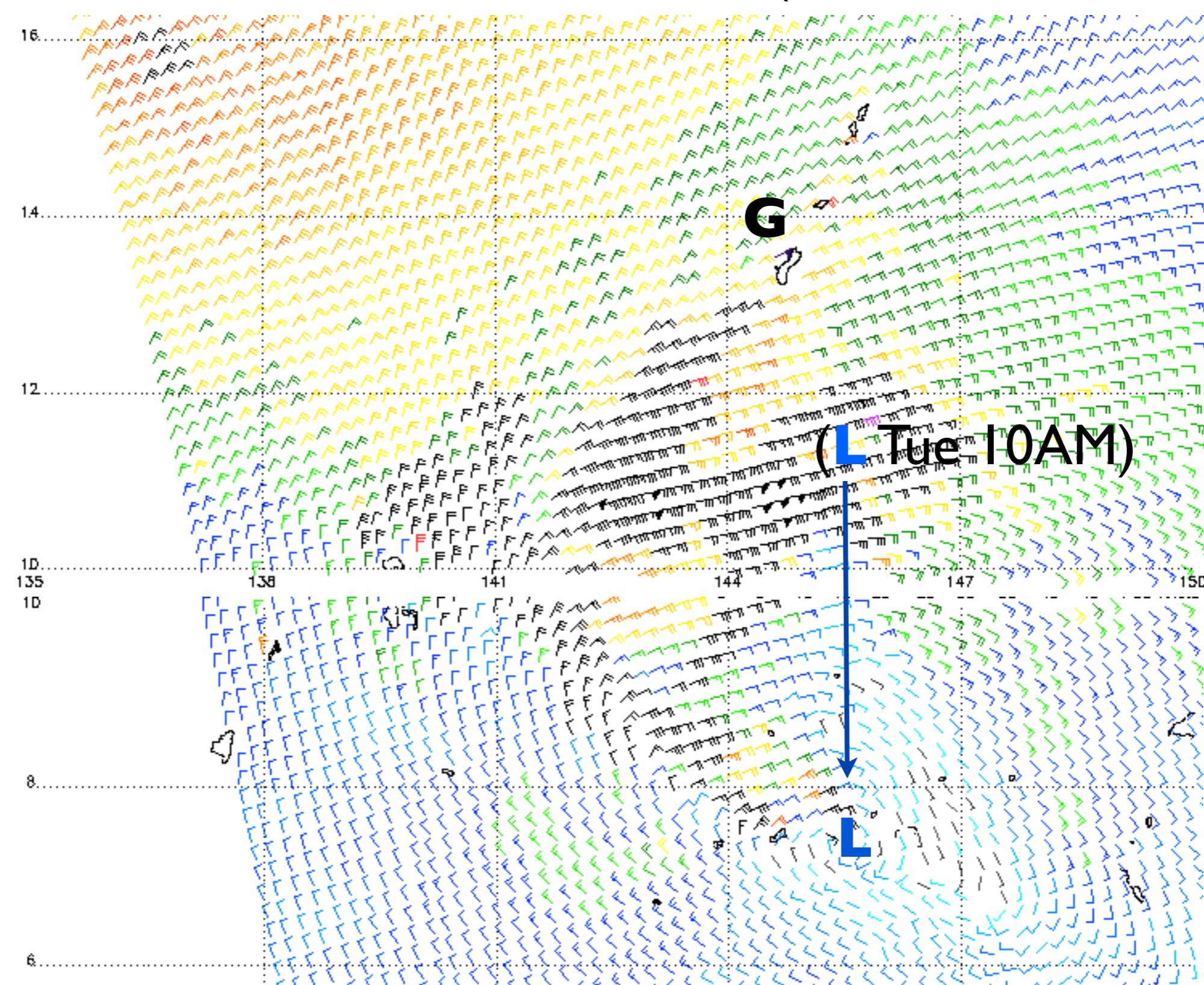
'current' condition:

satellite IR imagery on 2014-01-29, ~01UTC
(01-29 Wed, 11AM)



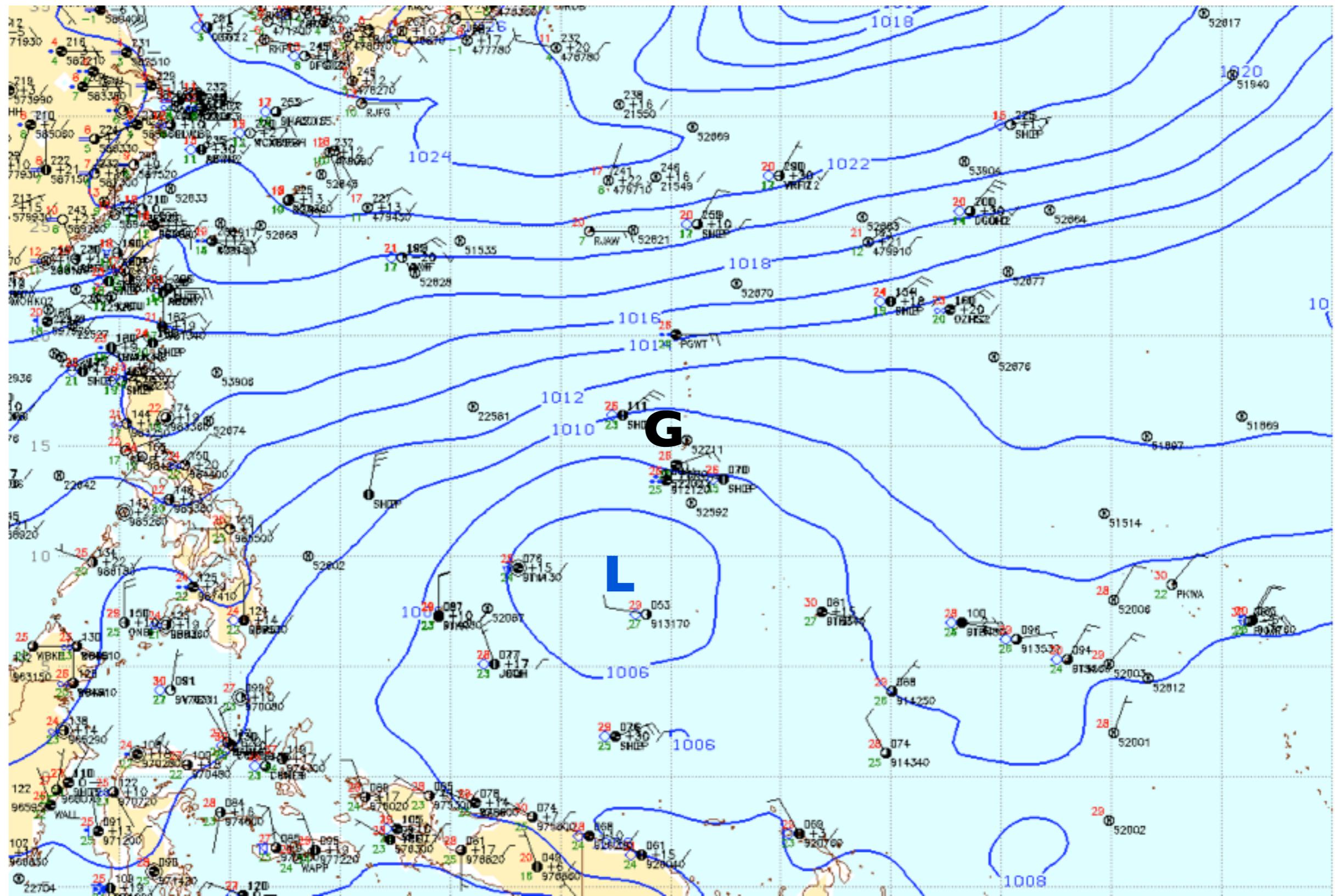
'current' condition:

scatterometer surface winds on 2014-01-28, 14UTC
(01-29 Wed, 00AM)



'current' condition:

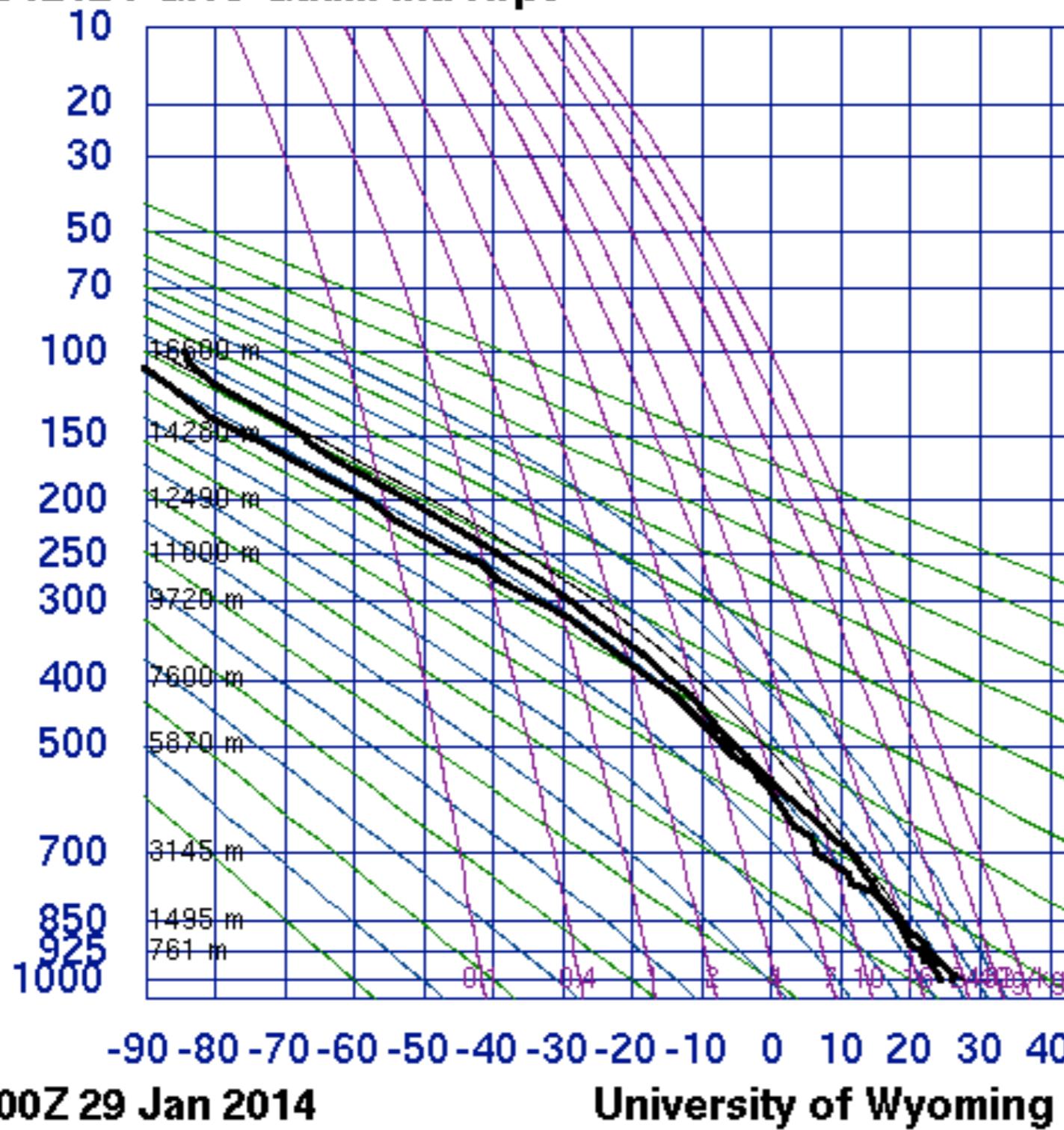
satellite IR imagery on 2014-01-28, 18UTC
(01-29 Wed, 04AM)



'current' condition:

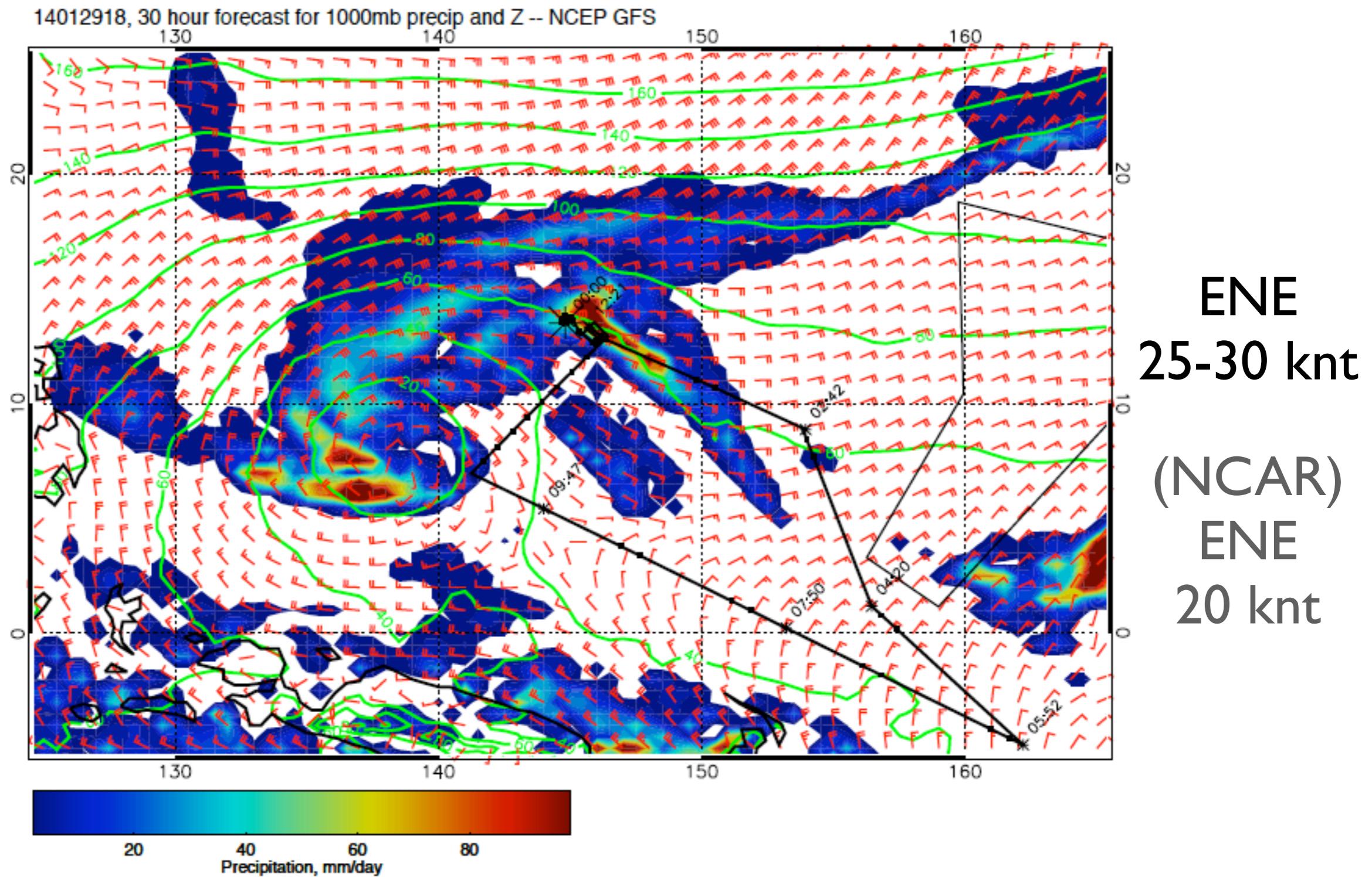
soundings on 2014-01-29, 00UTC
(01-29 Wed, 10AM)

91212 PGAC Guam Intl Arpt

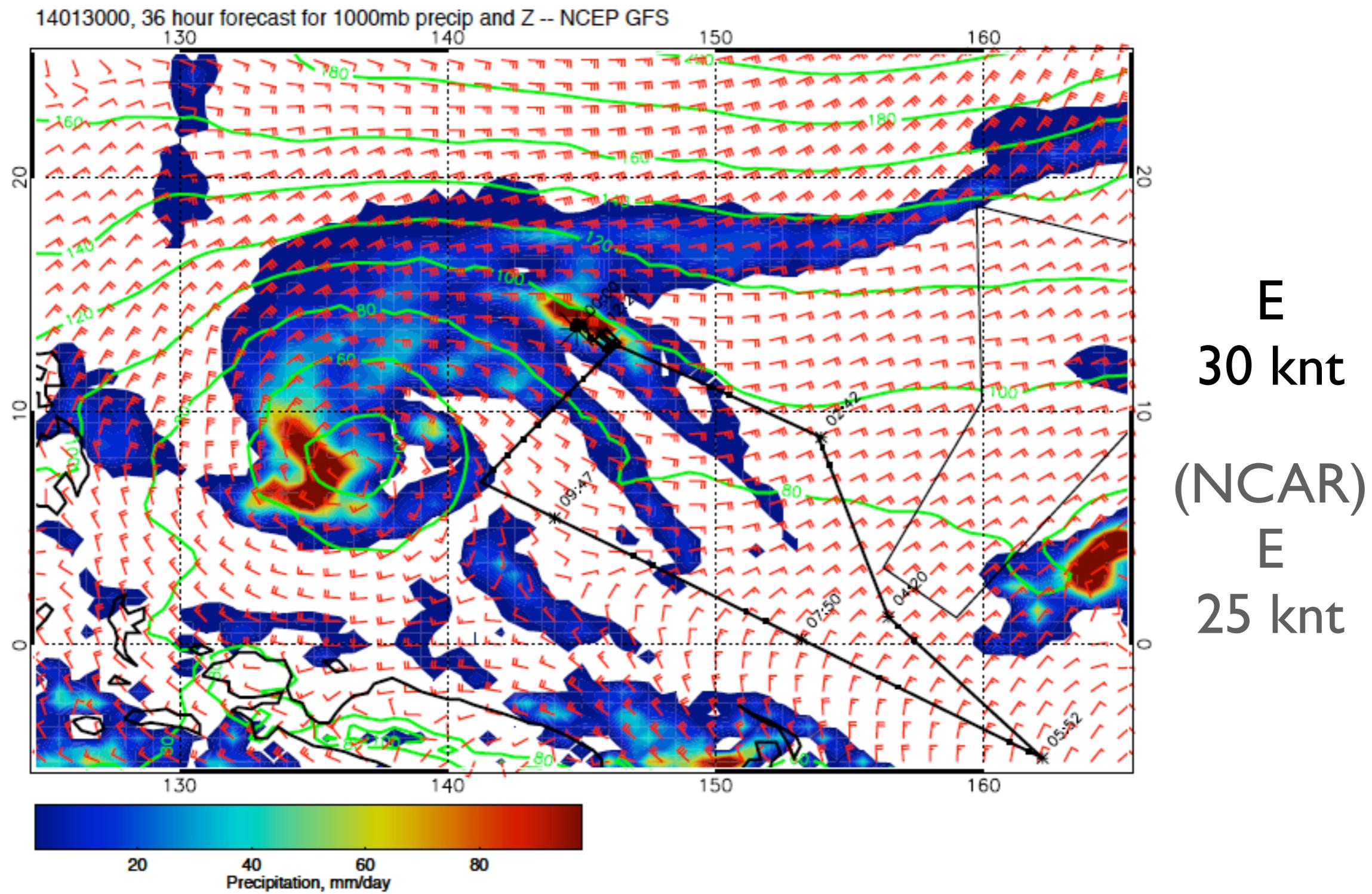


| | |
|------|--------|
| SLAT | 13.48 |
| SLON | 144.79 |
| SELV | 76.00 |
| SHOW | -3.17 |
| LIFT | -4.38 |
| LFTV | -4.82 |
| SWET | 305.3 |
| KINX | 36.90 |
| CTOT | 23.50 |
| VTOT | 23.70 |
| TOTL | 47.20 |
| CAPE | 1605. |
| CAPV | 1728. |
| CINS | -9.07 |
| CINV | -5.43 |
| EQLV | 116.6 |
| EQTV | 116.6 |
| LFCT | 885.0 |
| LFCV | 894.0 |
| BRCH | 36.84 |
| BRCV | 39.67 |
| LCLT | 295.9 |
| LCLP | 946.2 |
| MLTH | 300.6 |
| MLMR | 18.88 |
| THCK | 5794. |
| PWAT | 65.44 |

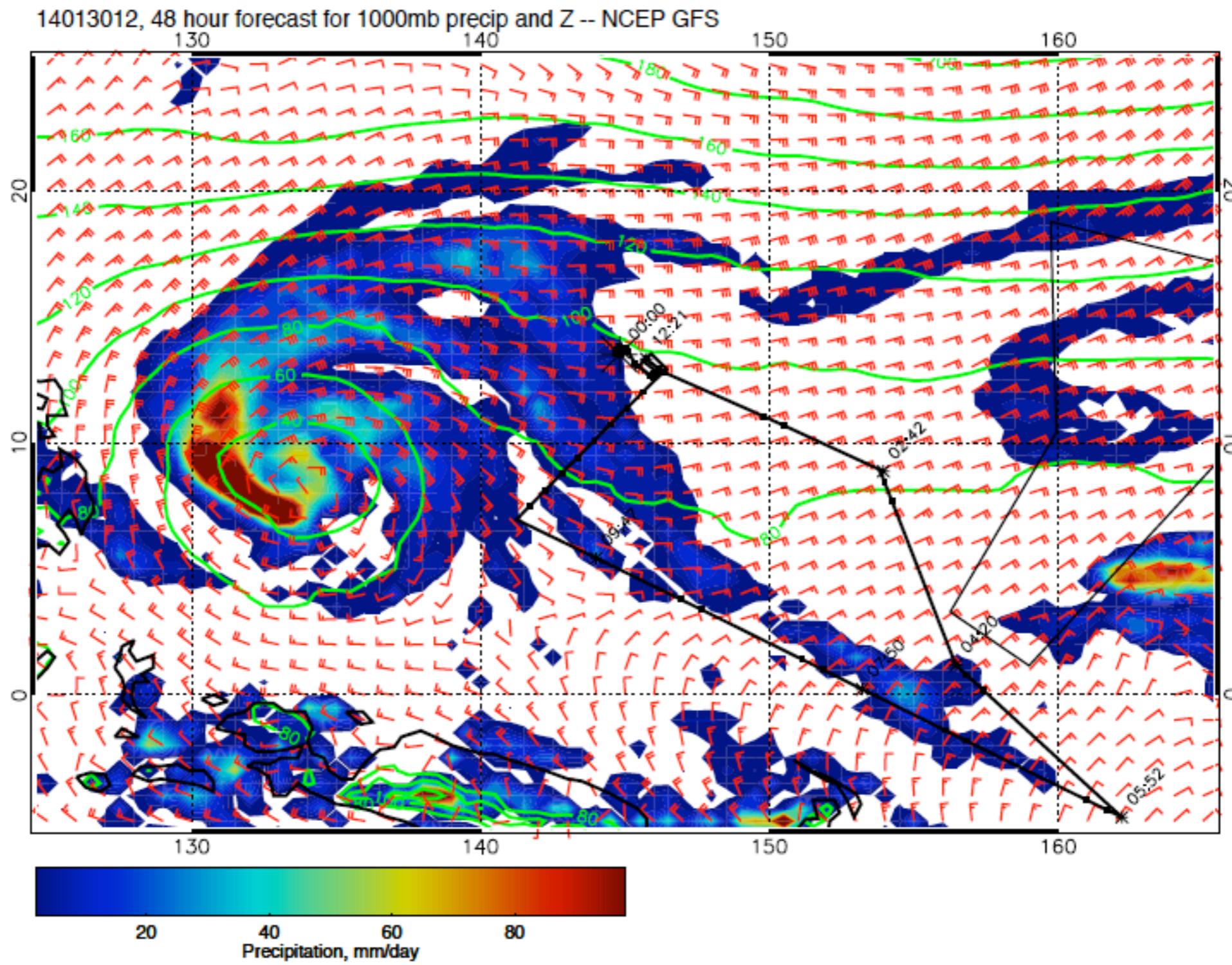
'Thu take-off #1' condition (GFS):
1000mb precip & winds on 2014-01-29, 18UTC
(01-30 Thu, 04AM)



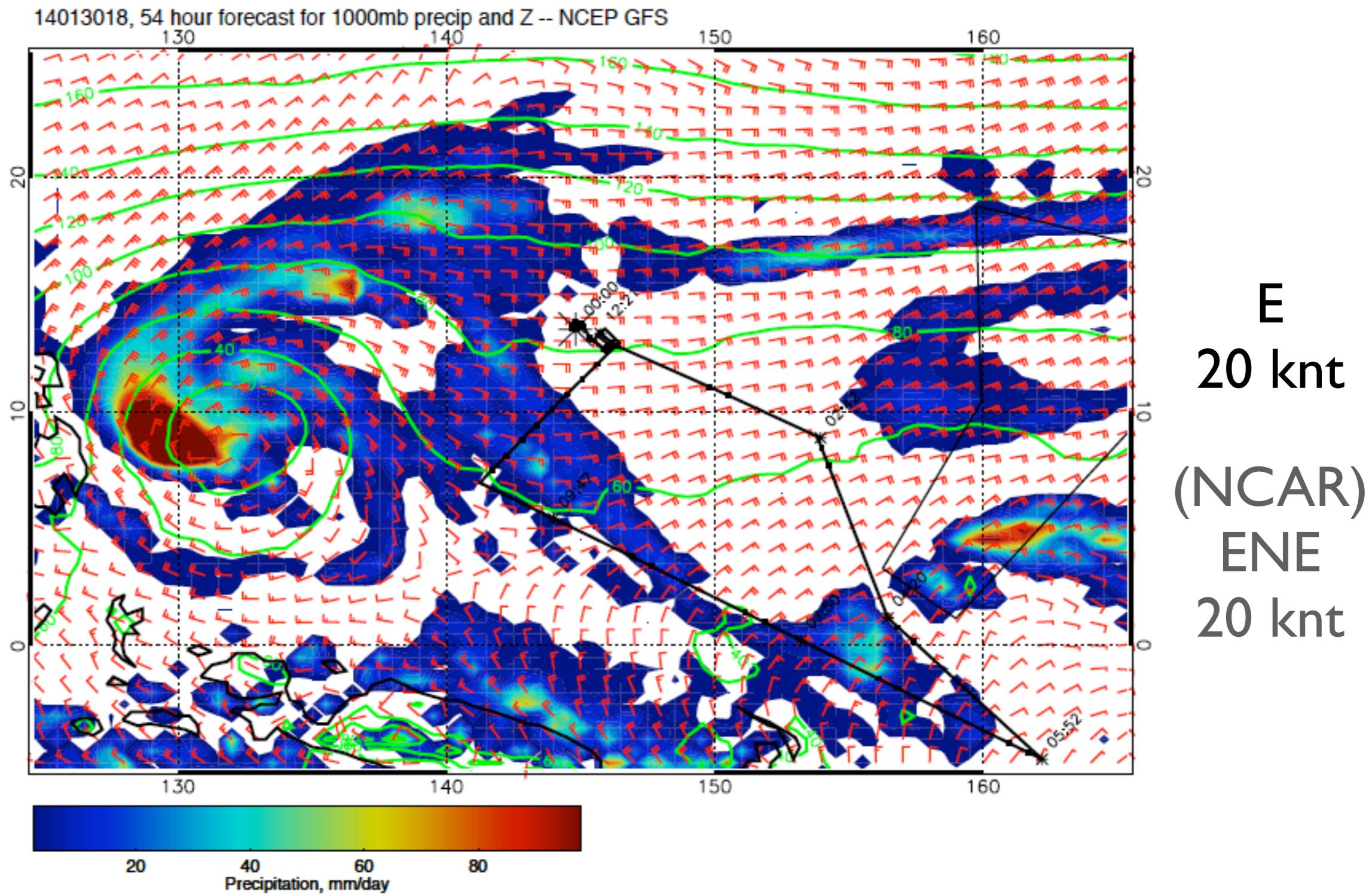
'Thu take-off #2' condition (GFS):
1000mb precip & winds on 2014-01-30, 00UTC
(01-30 Thu, 10AM)



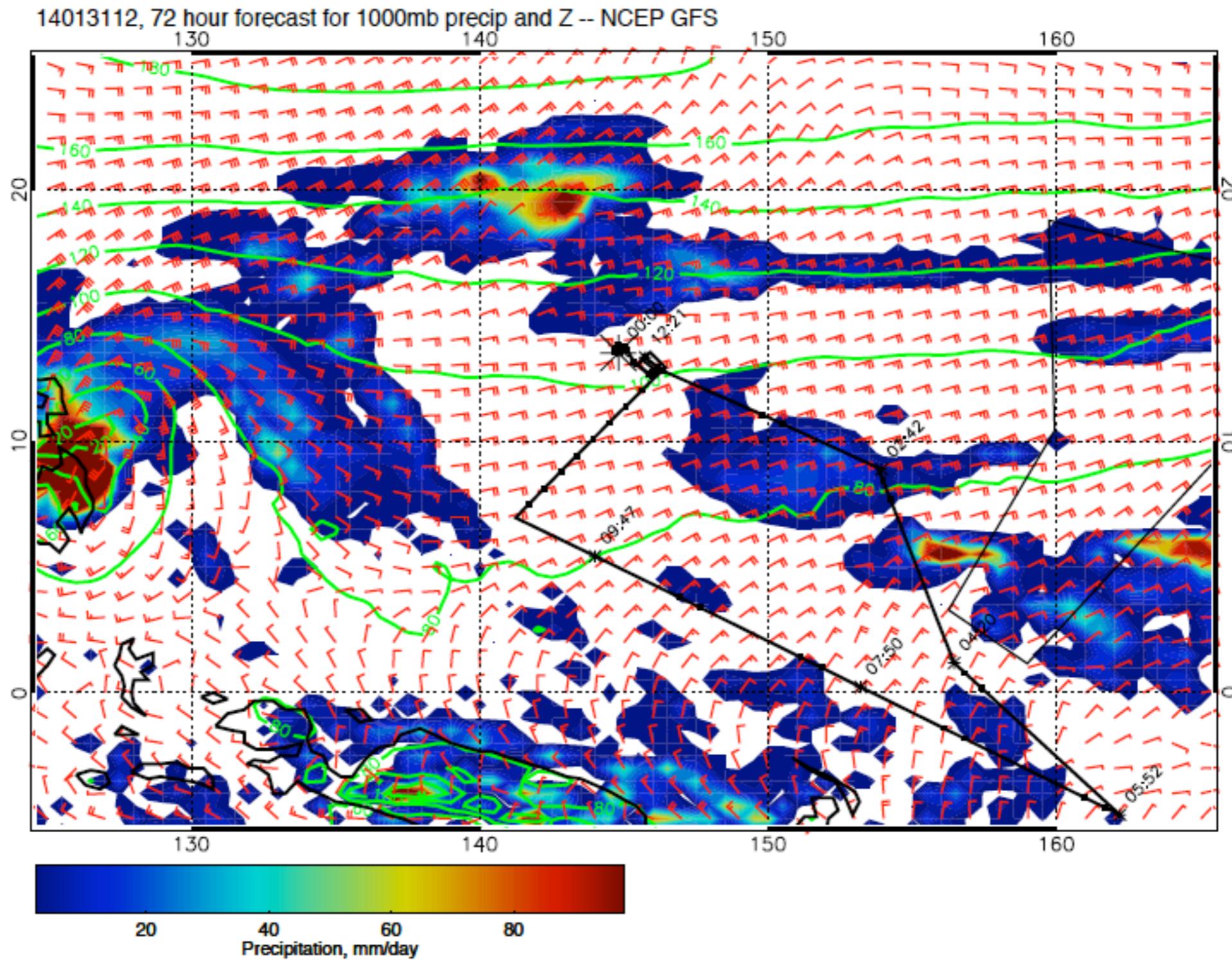
'Thu landing #1' condition (GFS):
1000mb precip & winds on 2014-01-30, 12UTC
(01-30 Thu, 10PM)



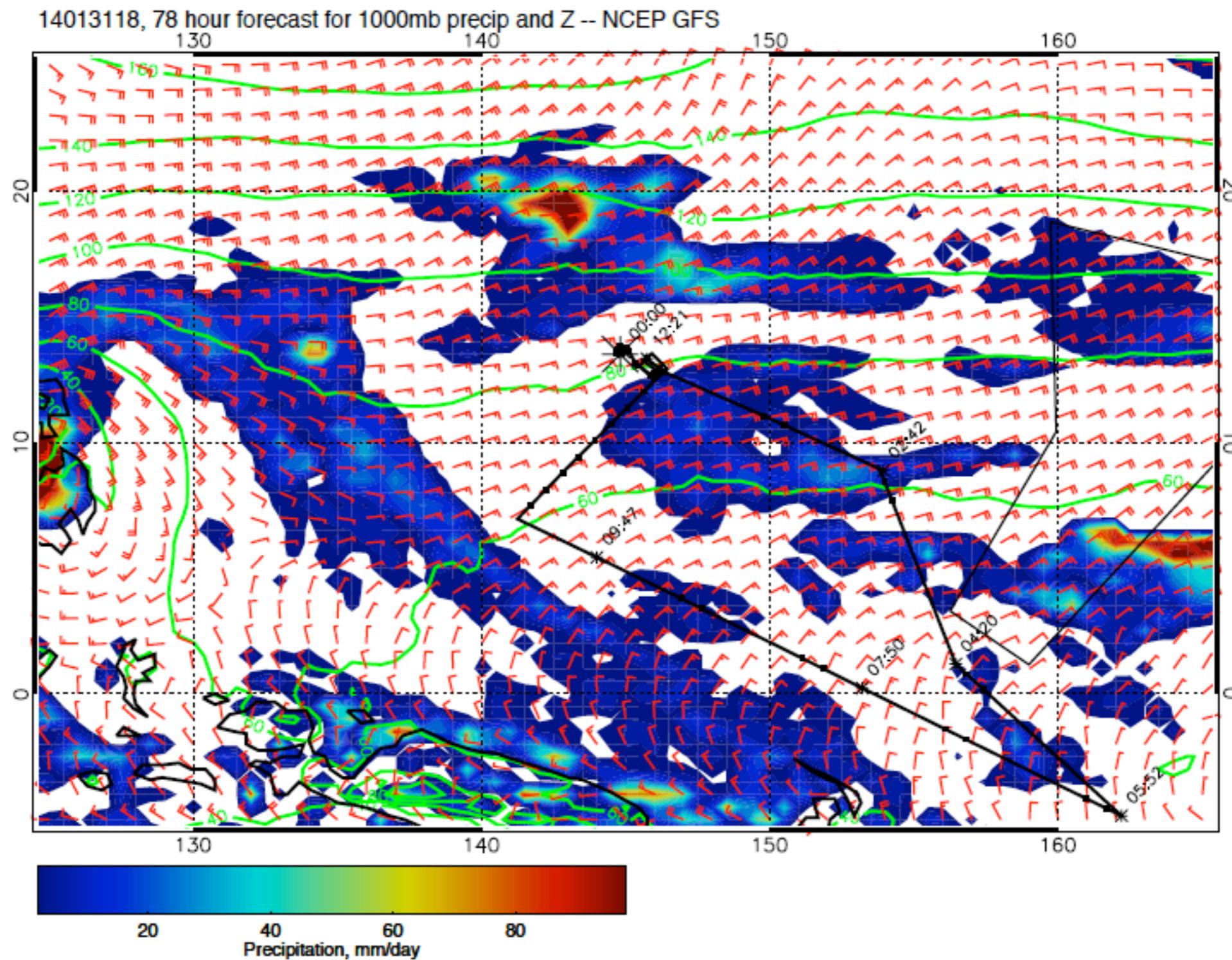
‘Thu landing #2’ or ‘Fri take-off’ condition (GFS):
1000mb precip & winds on 2014-01-30, 18UTC
(01-31 Fri, 4AM)



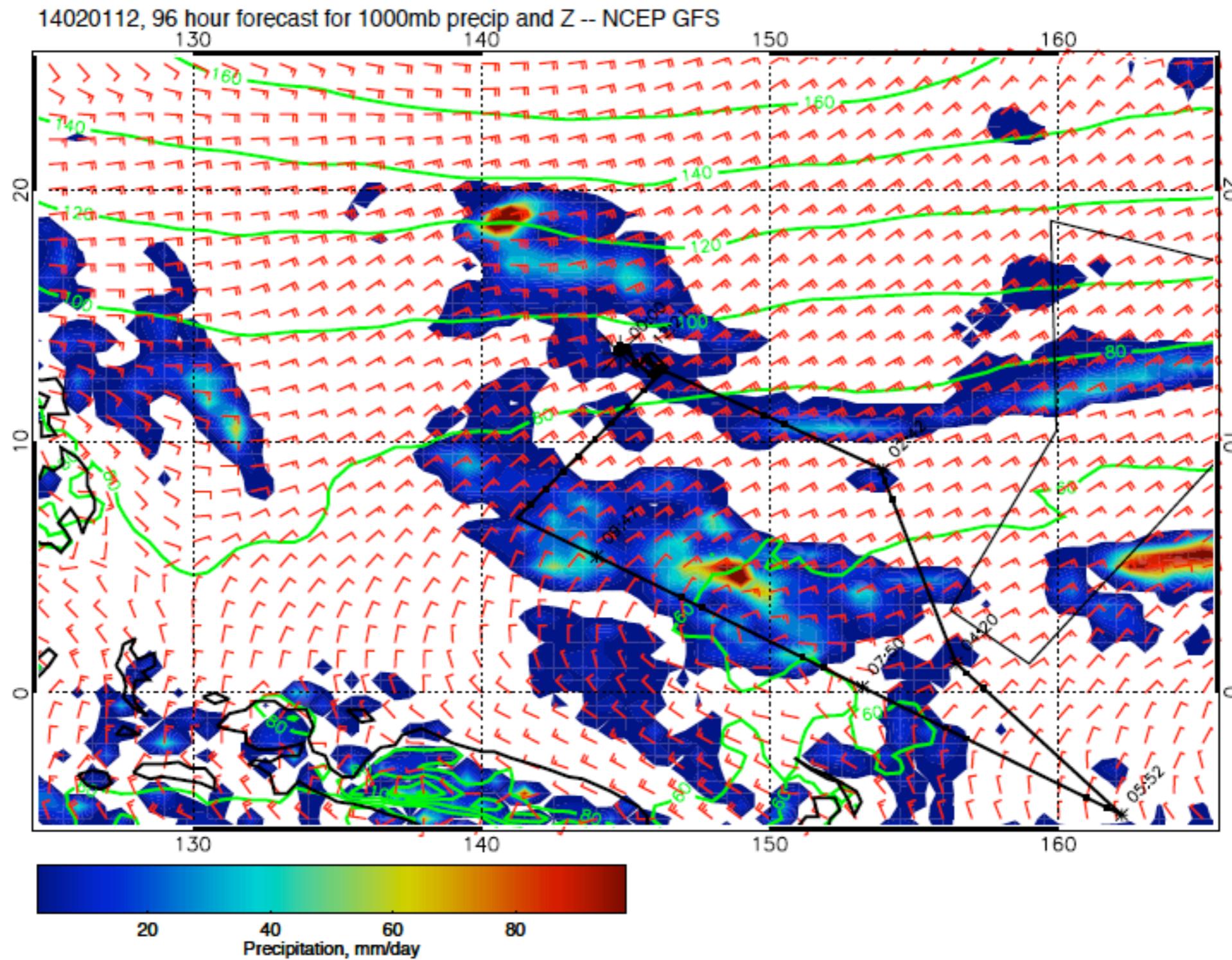
'Fri landing' condition (GFS):
1000mb precip & winds on 2014-01-31, 12UTC
(01-31 Fri, 10PM)



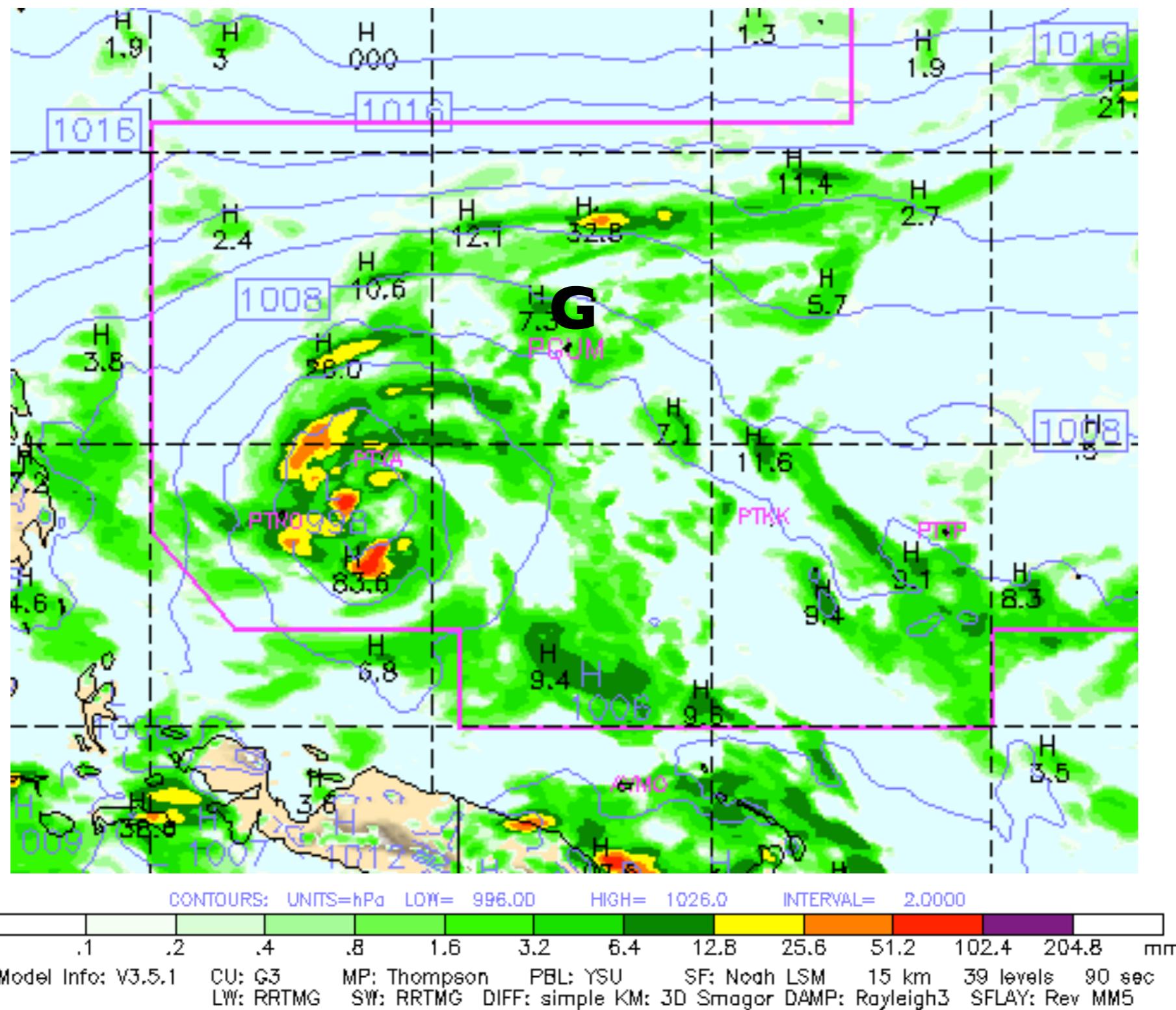
'Sat take-off' condition (GFS):
1000mb precip & winds on 2014-01-31, 18UTC
(01-31 Sat, 04AM)



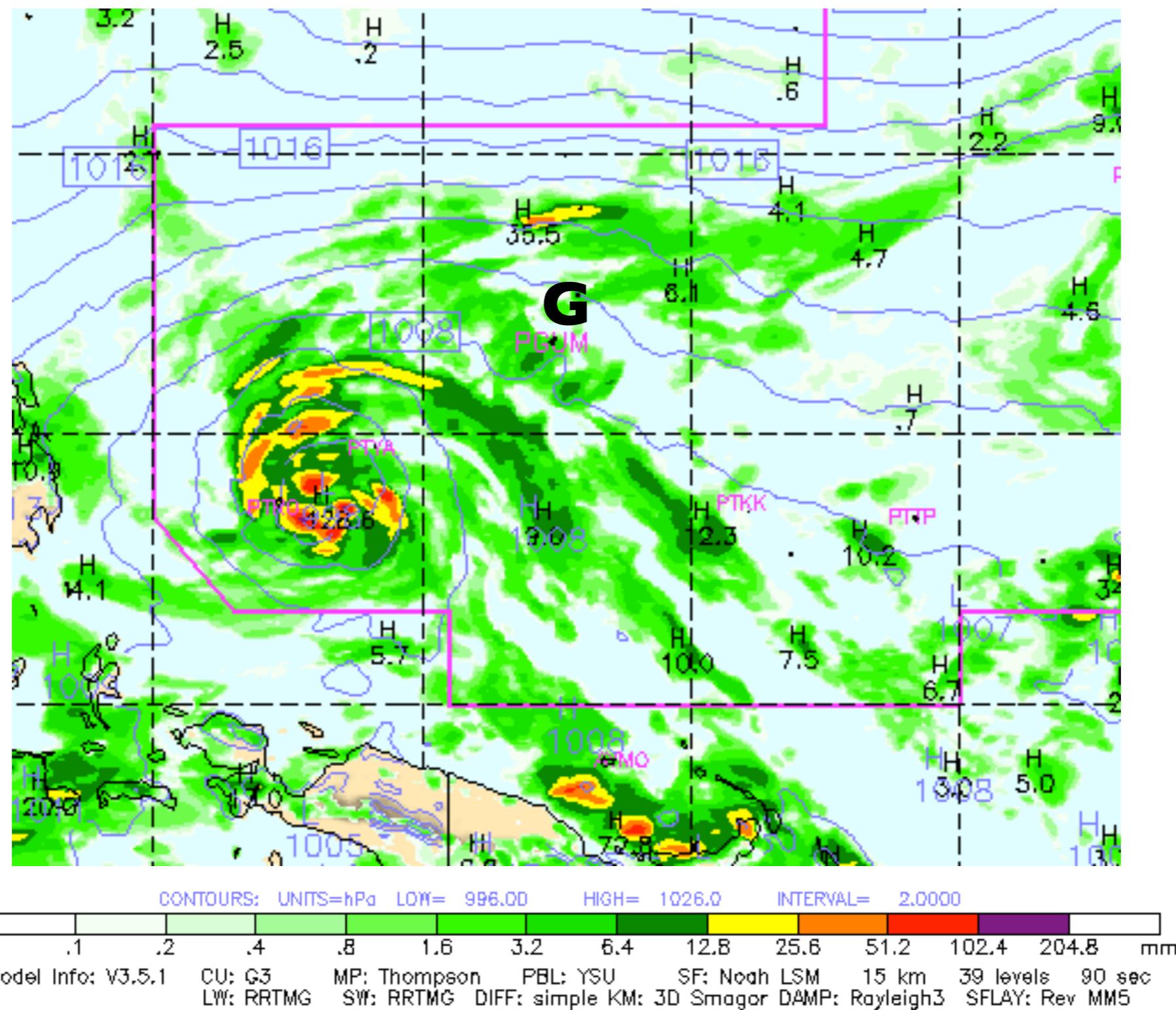
'Sat landing' condition (GFS):
1000mb precip & winds on 2014-02-01, 12UTC
(02-01 Sat, 10PM)



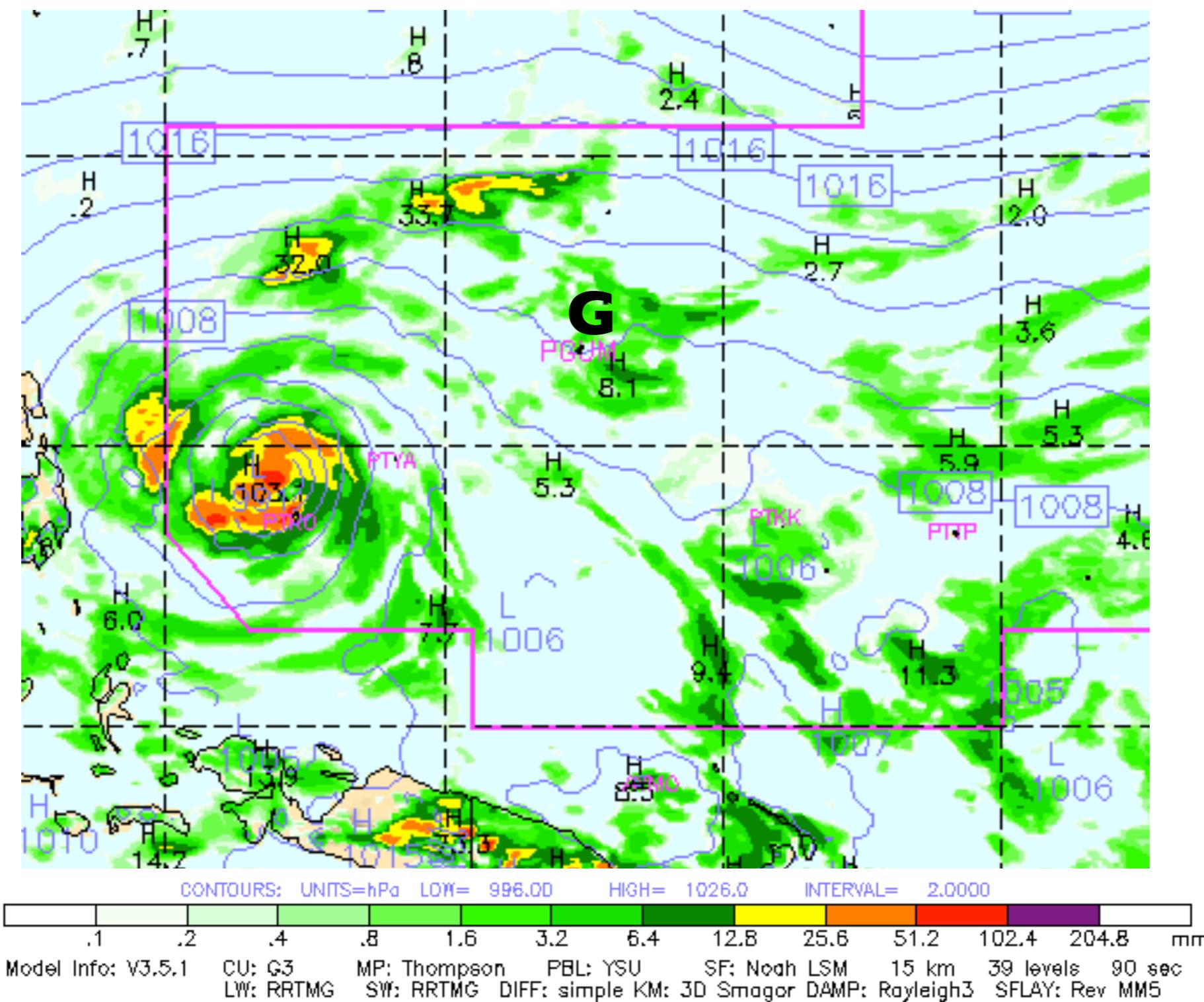
'Thu take-off #1' condition (NCAR):
total 3hr precip on 2014-01-29, 18UTC
(01-30 Thu, 04AM)



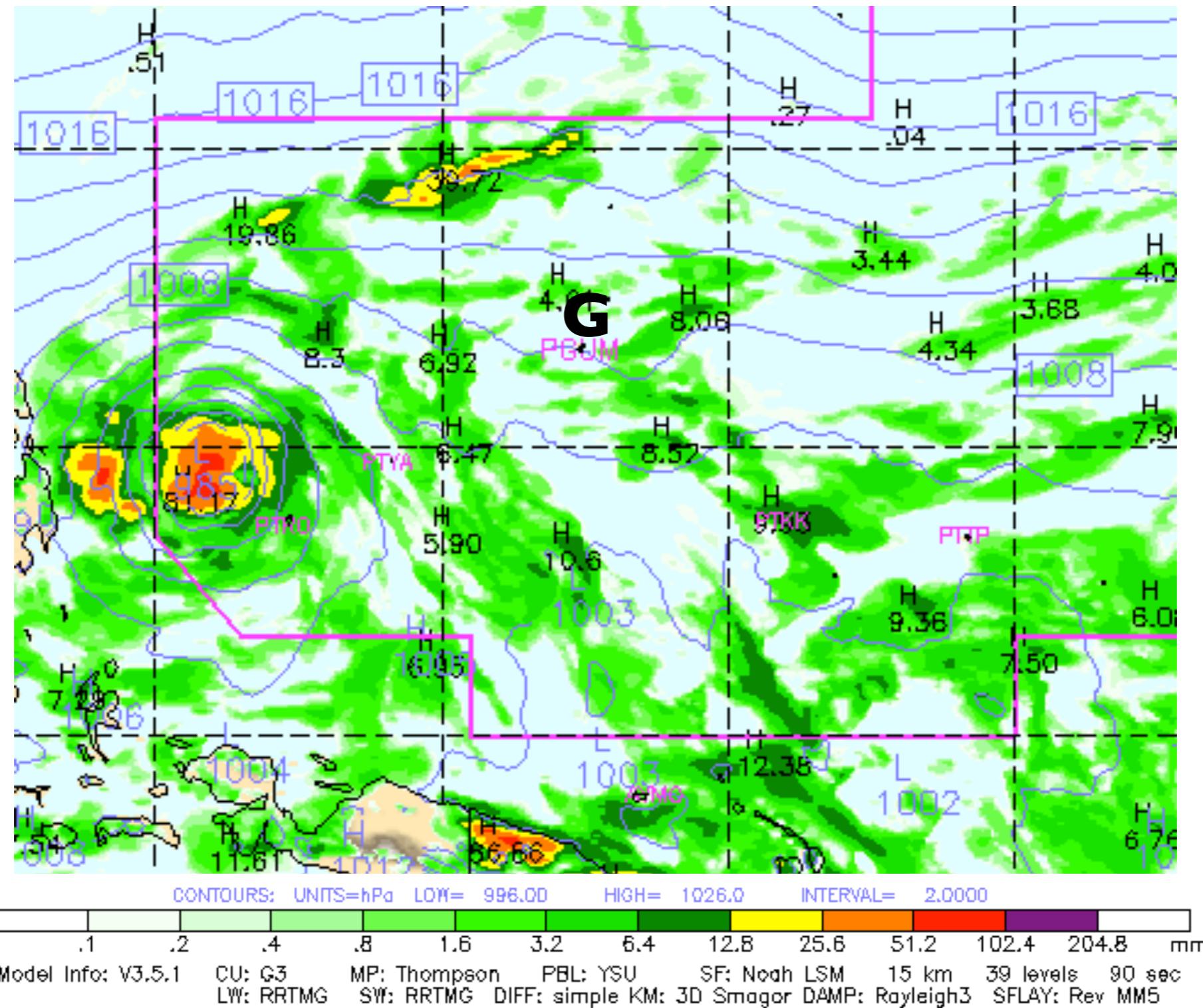
'Thu take-off #2' condition (NCAR):
total 3hr precip on 2014-01-30, 00UTC
(01-30 Thu, 10AM)



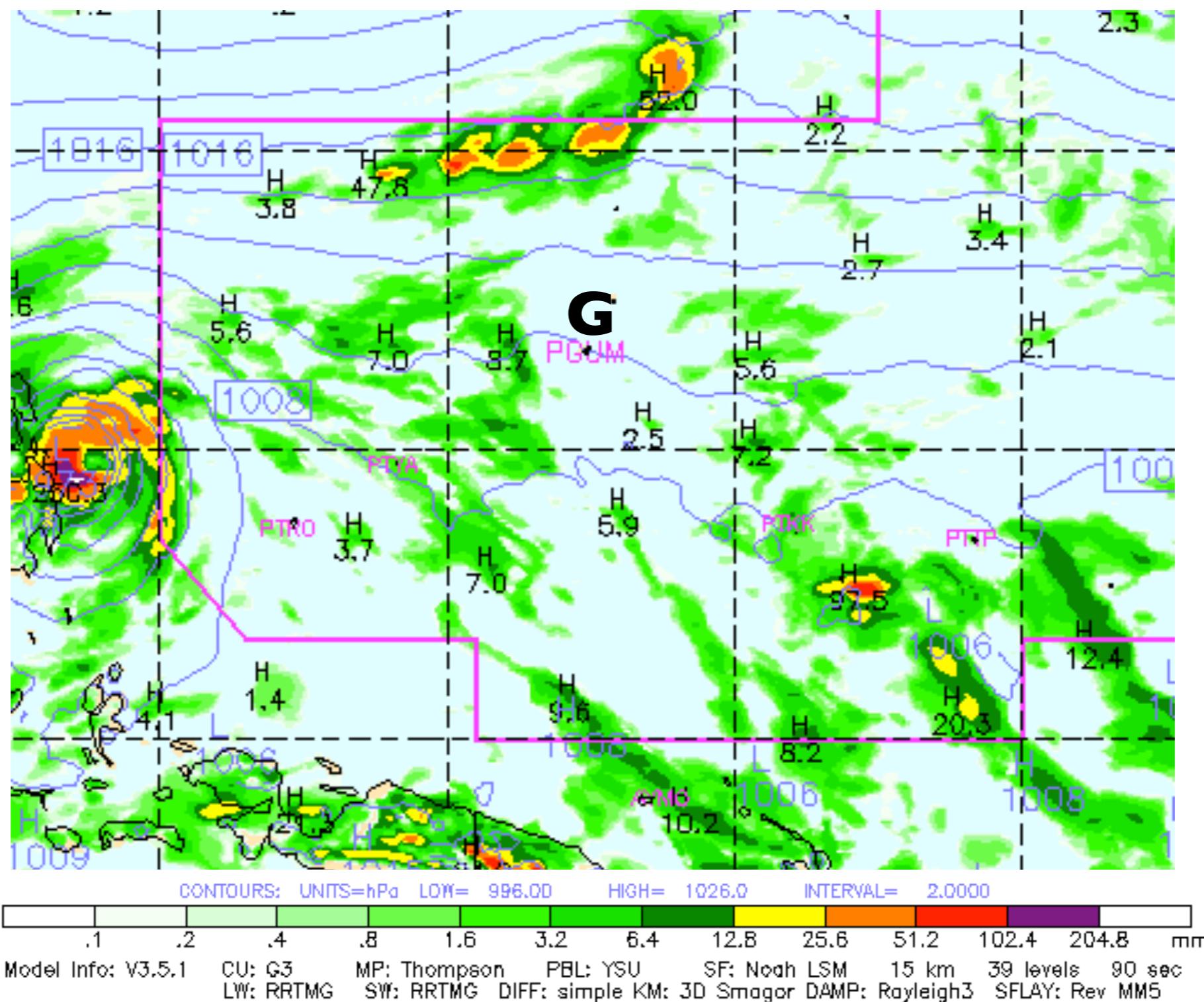
'Thu landing #1' condition (NCAR):
total 3hr precip on 2014-01-30, 12UTC
(01-30 Thu, 10PM)



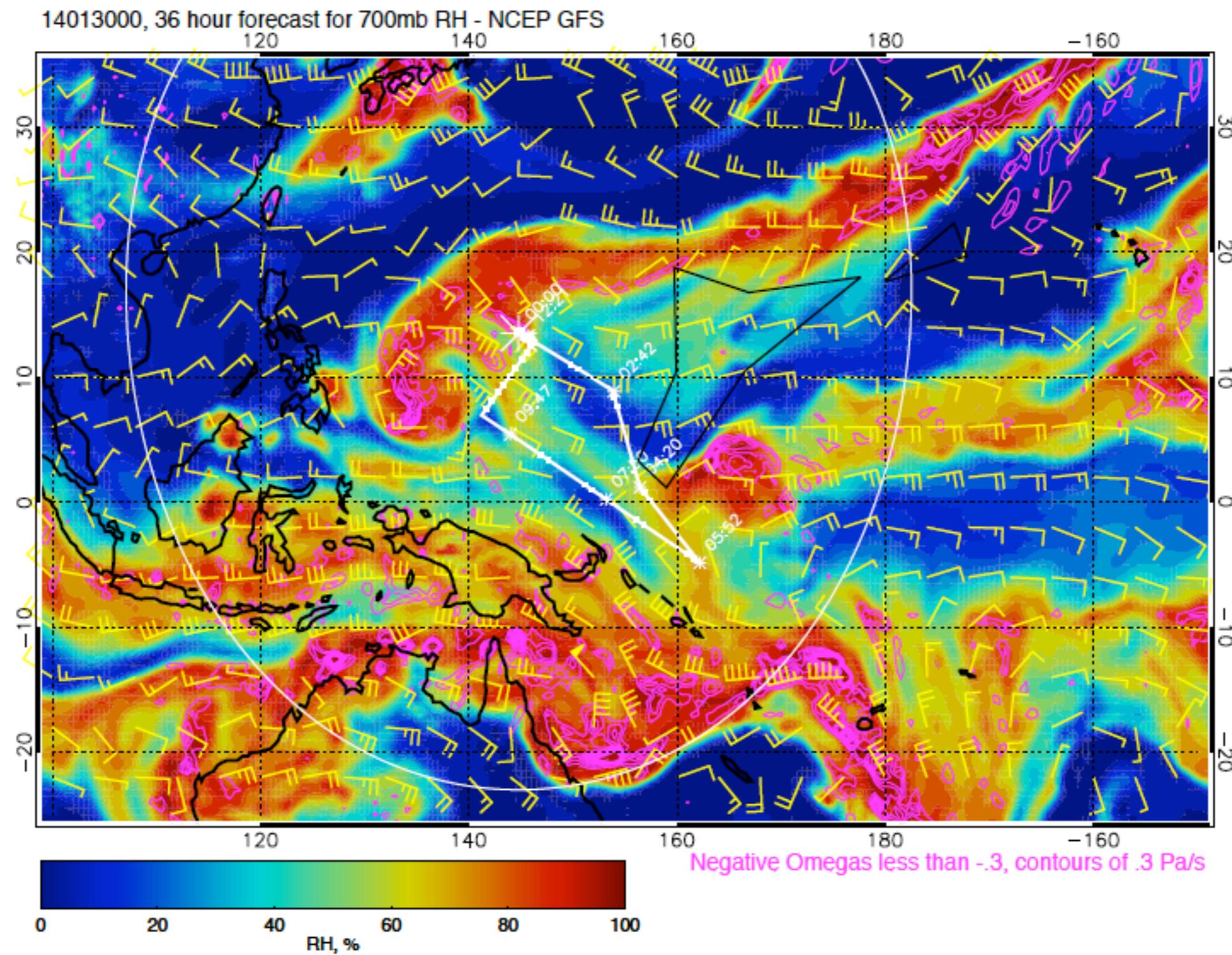
'Thu landing #2' or 'Fri take-off' condition (NCAR):
total 3hr precip on 2014-01-30, 18UTC
(01-31 Fri, 04AM)



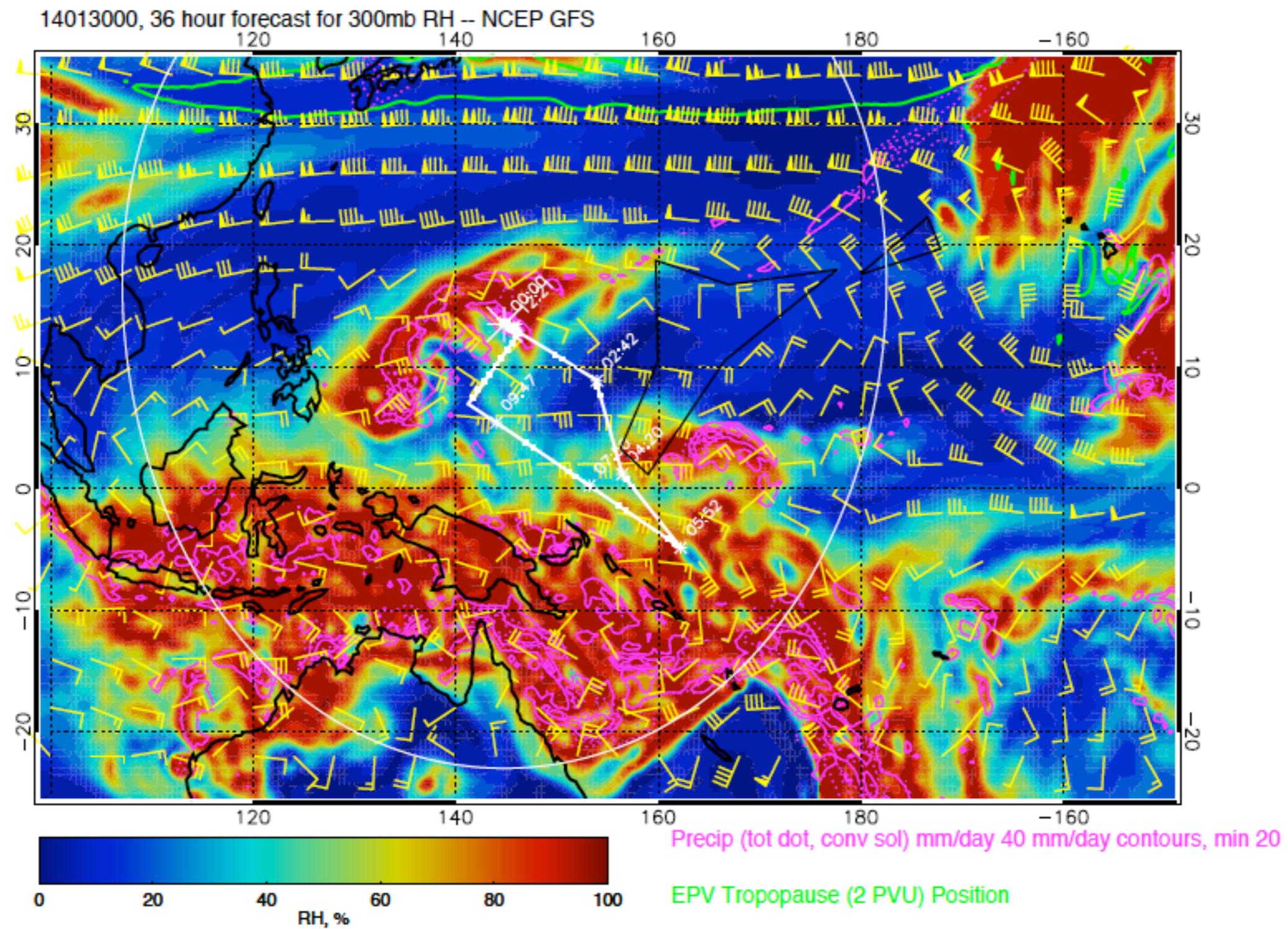
'Fri landing' condition (NCAR):
total 3hr precip on 2014-01-31, 12UTC
(01-31 Fri, 10PM)



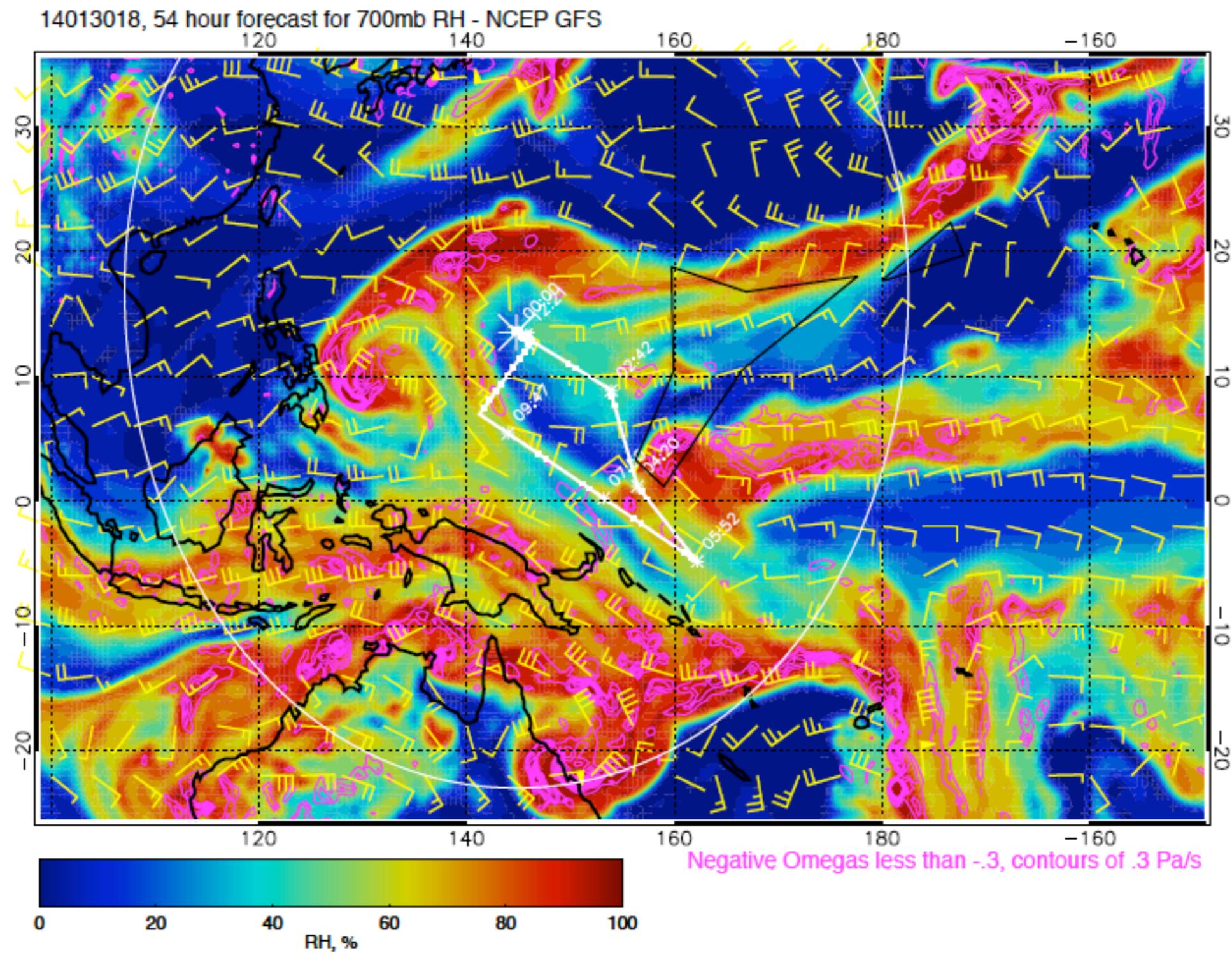
'Thu take-off #2' condition (GFS):
700mb RH & winds on 2014-01-30, 00UTC
(01-30 Thu, 10AM)



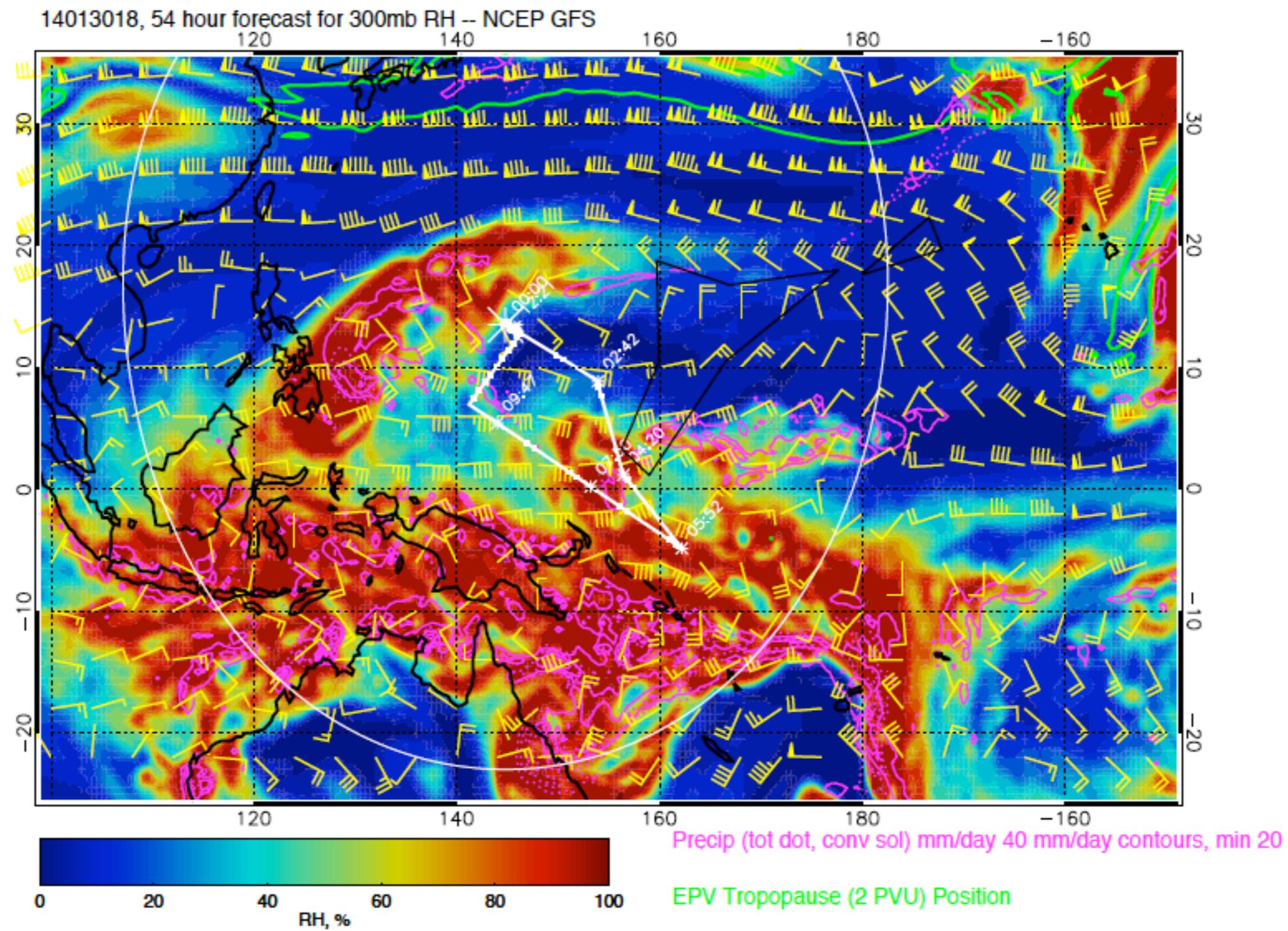
'Thu take-off #2' condition (GFS):
300mb RH & precip & winds on 2014-01-30, 00UTC
(01-30 Thu, 10AM)



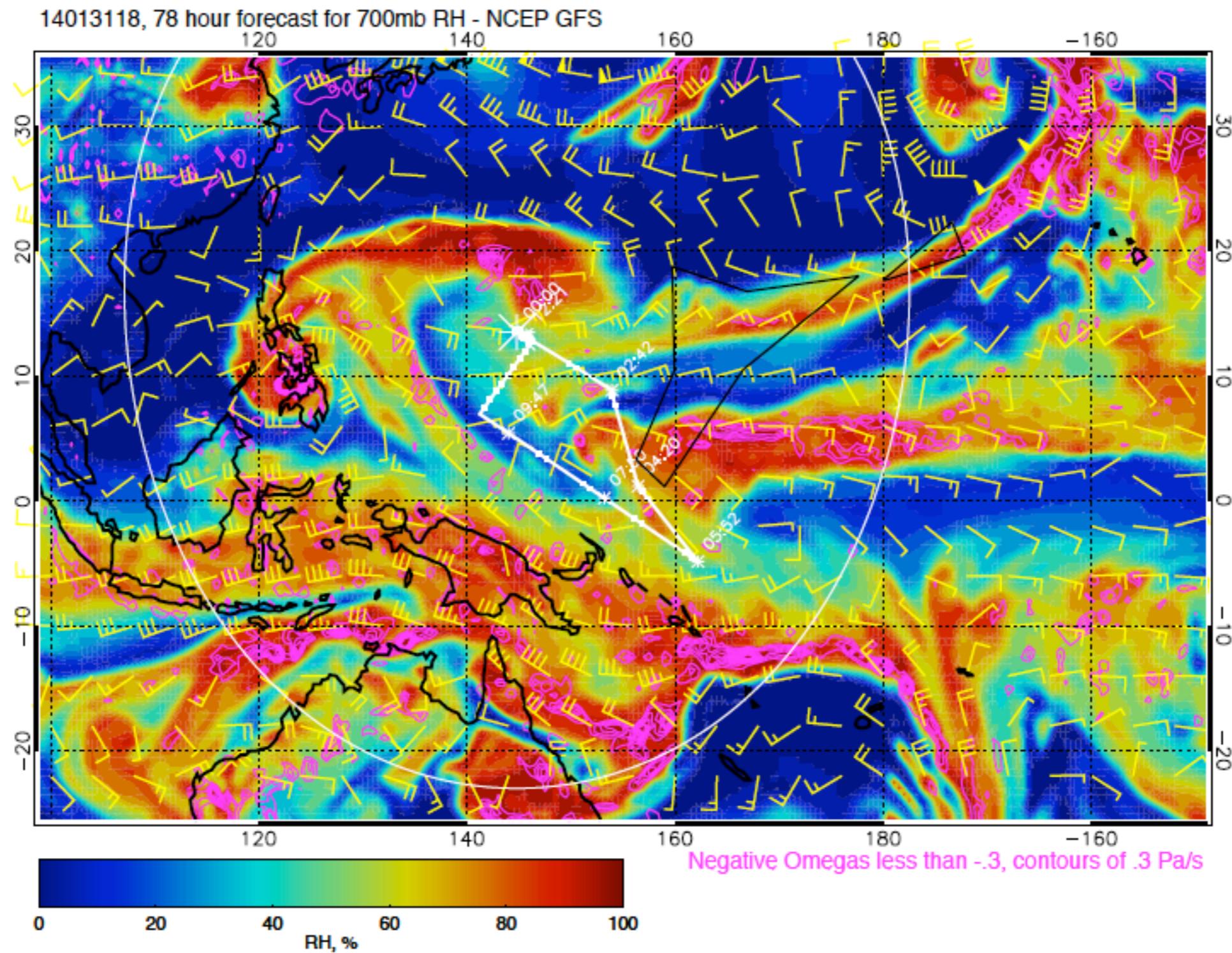
'Fri take-off' condition (GFS):
700mb RH & winds on 2014-01-30, 18UTC
(01-31 Fri, 04AM)



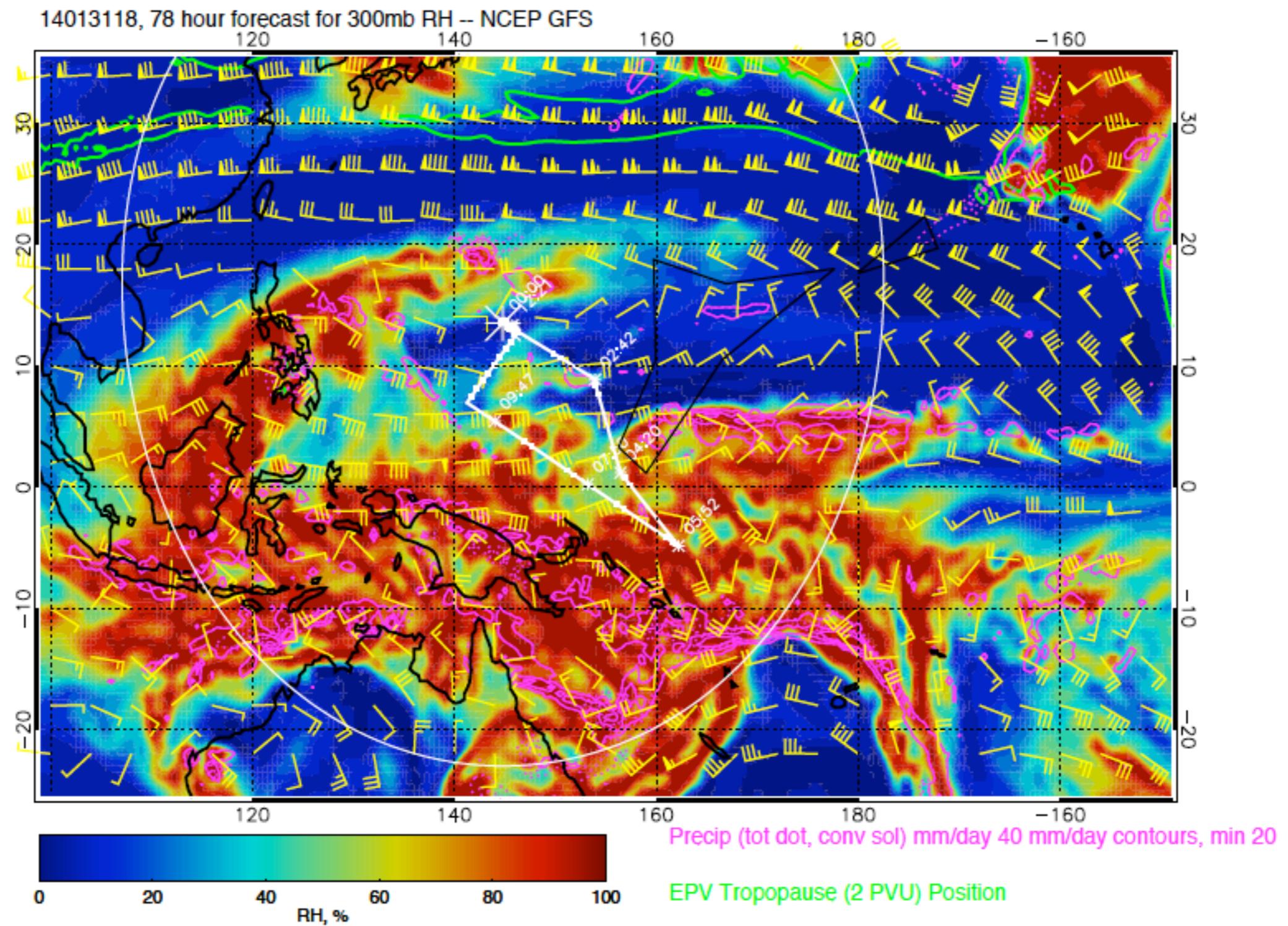
'Fri take-off' condition (GFS):
300mb RH & precip & winds on 2014-01-30, 18UTC
(01-31 Fri, 04AM)



'Sat take-off' condition (GFS):
700mb RH & winds on 2014-01-31, 18UTC
(02-01 Sat, 04AM)



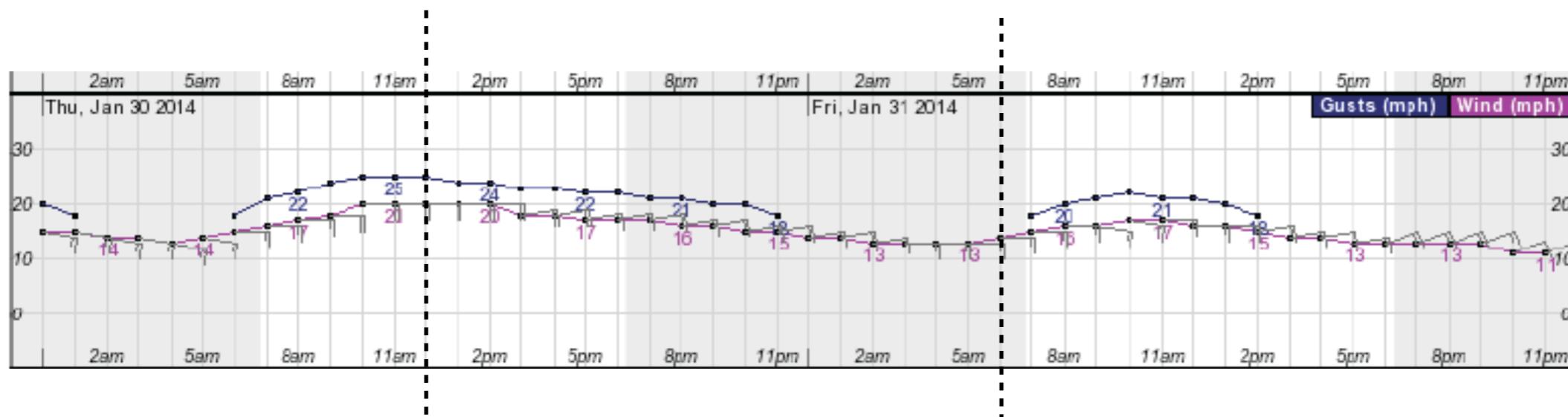
'Sat take-off' condition (GFS):
300mb RH & precip & winds on 2014-01-31, 18UTC
(02-01 Sat, 04AM)



'take-off & landing' conditions (NWS): surface winds, gusts on Thu - Fri

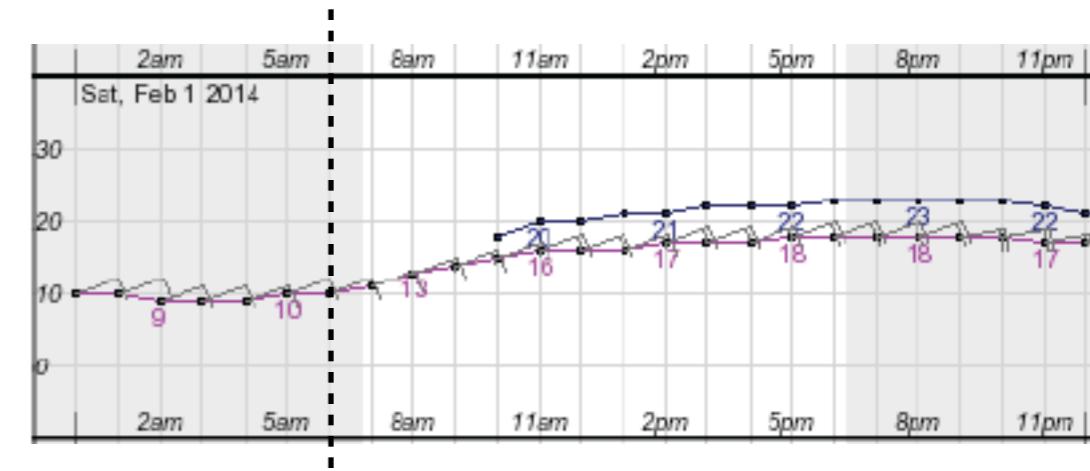
Thu 12PM

Fri 6AM



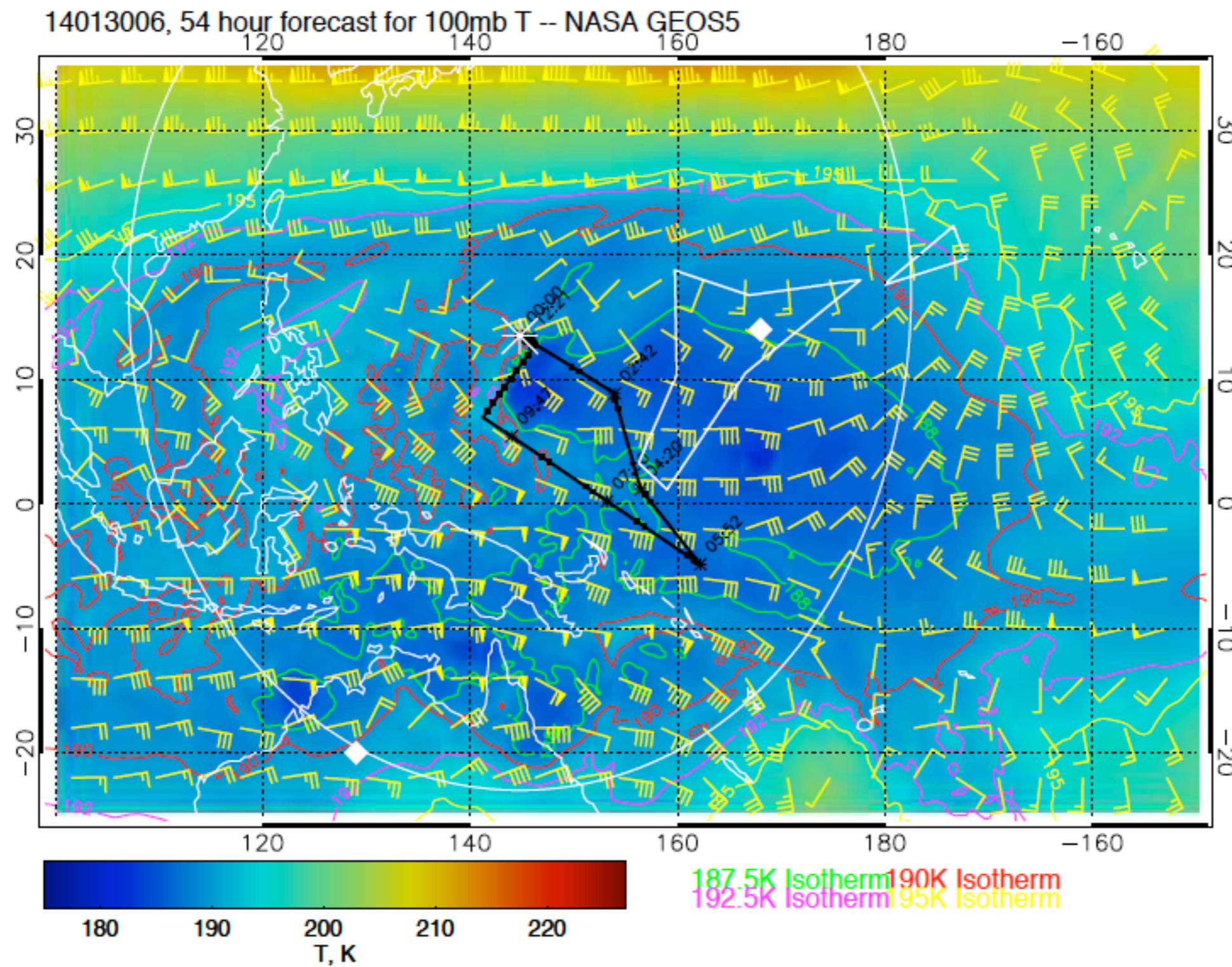
E 17 kts
(gusts 21 kts)

E 11 kts
Sat 6AM

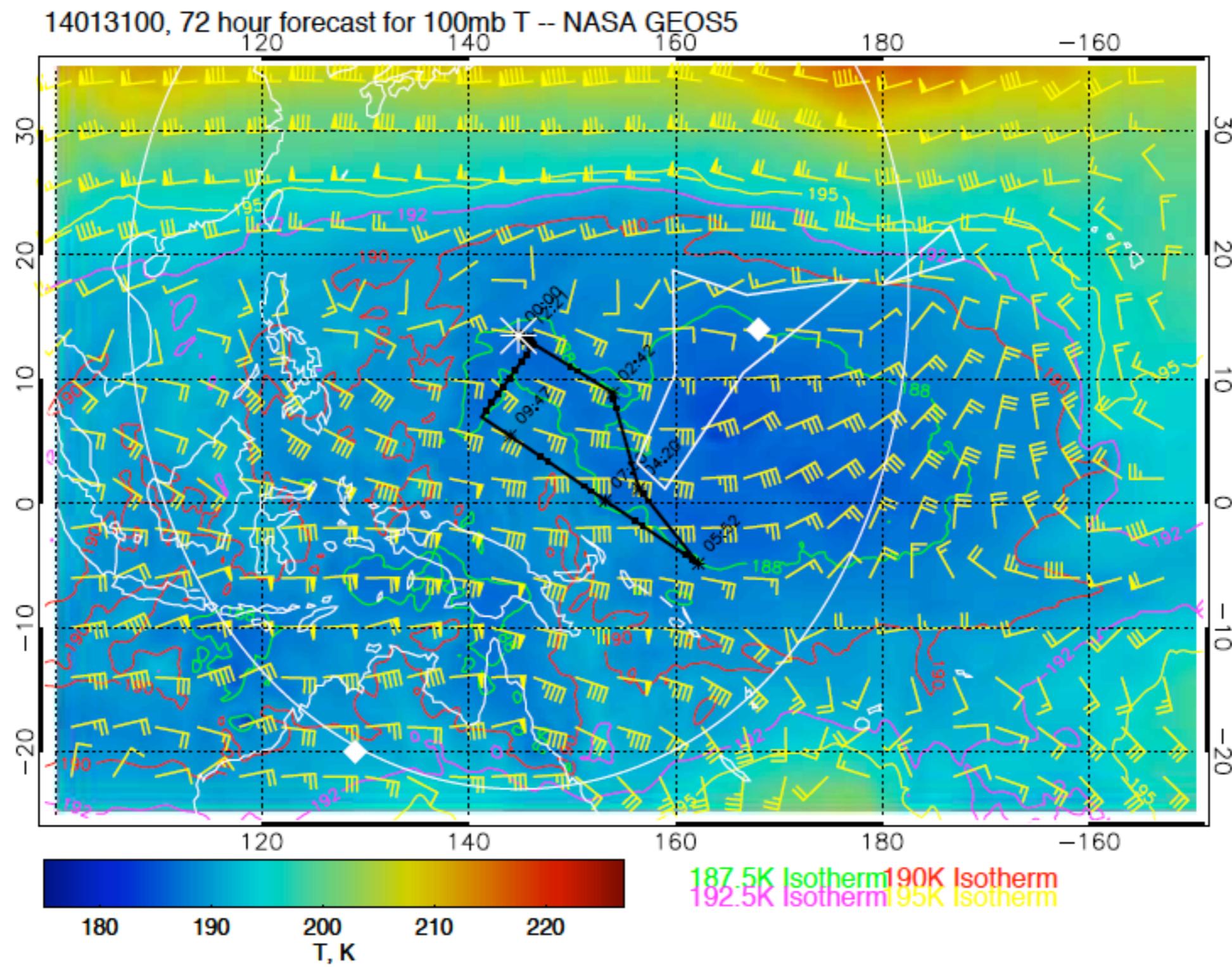


NE 9 kts

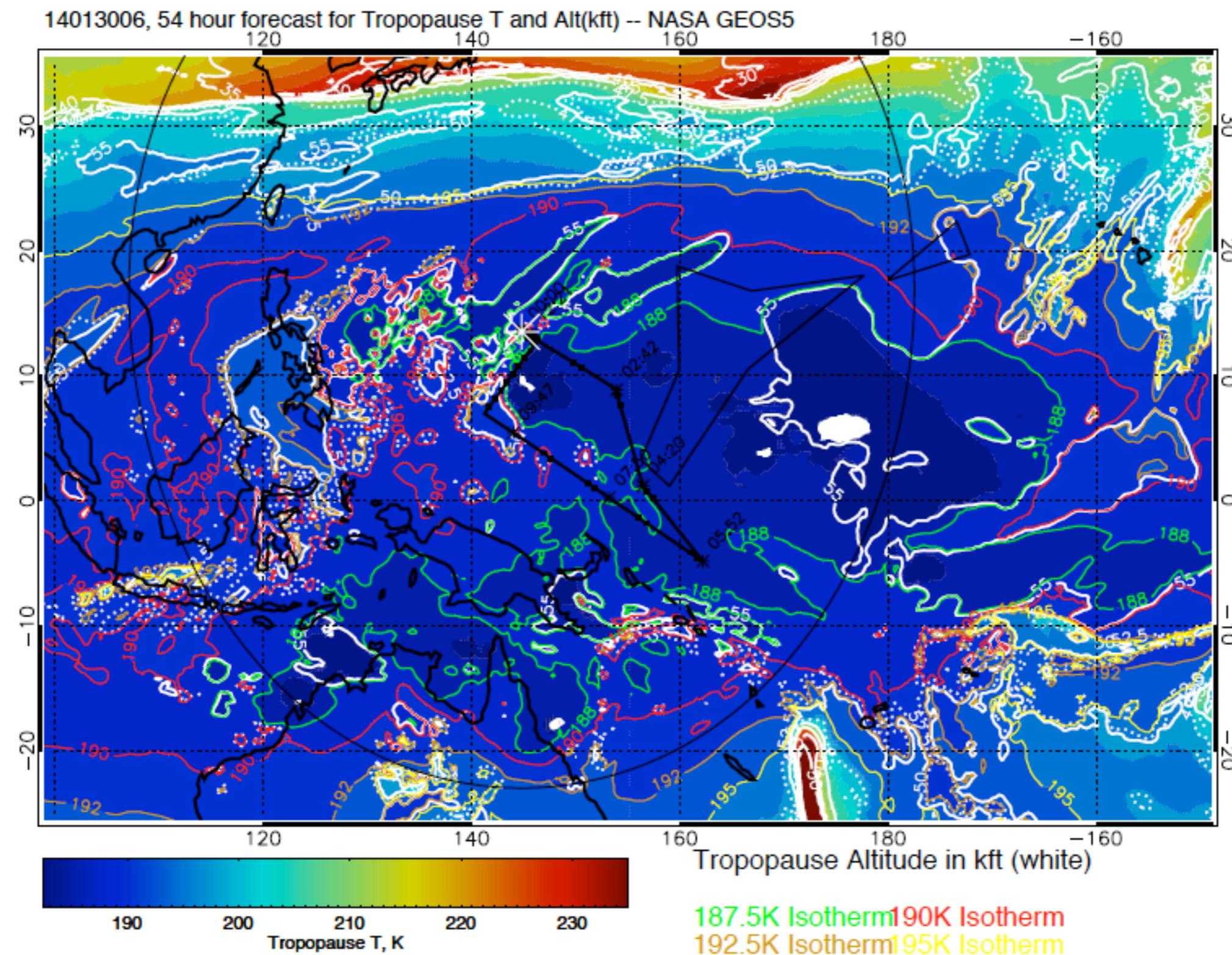
'Thu enroute' condition (GEOS5):
100mb T & winds on 2014-01-30, 06UTC
(01-30 Thu, 4PM)



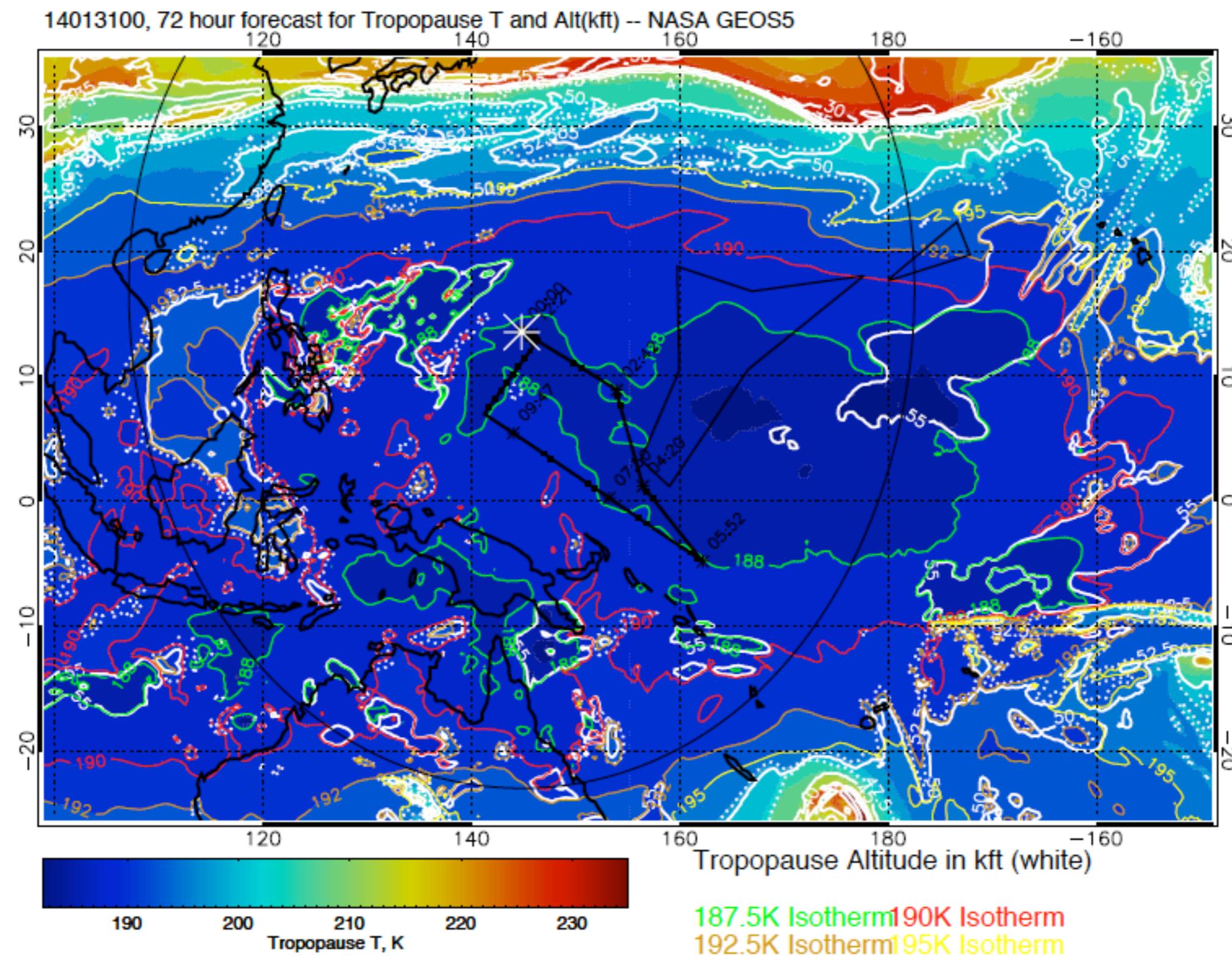
'Fri enroute' condition (GEOS5):
100mb T & winds on 2014-01-31, 00UTC
(01-31 Fri, 10AM)



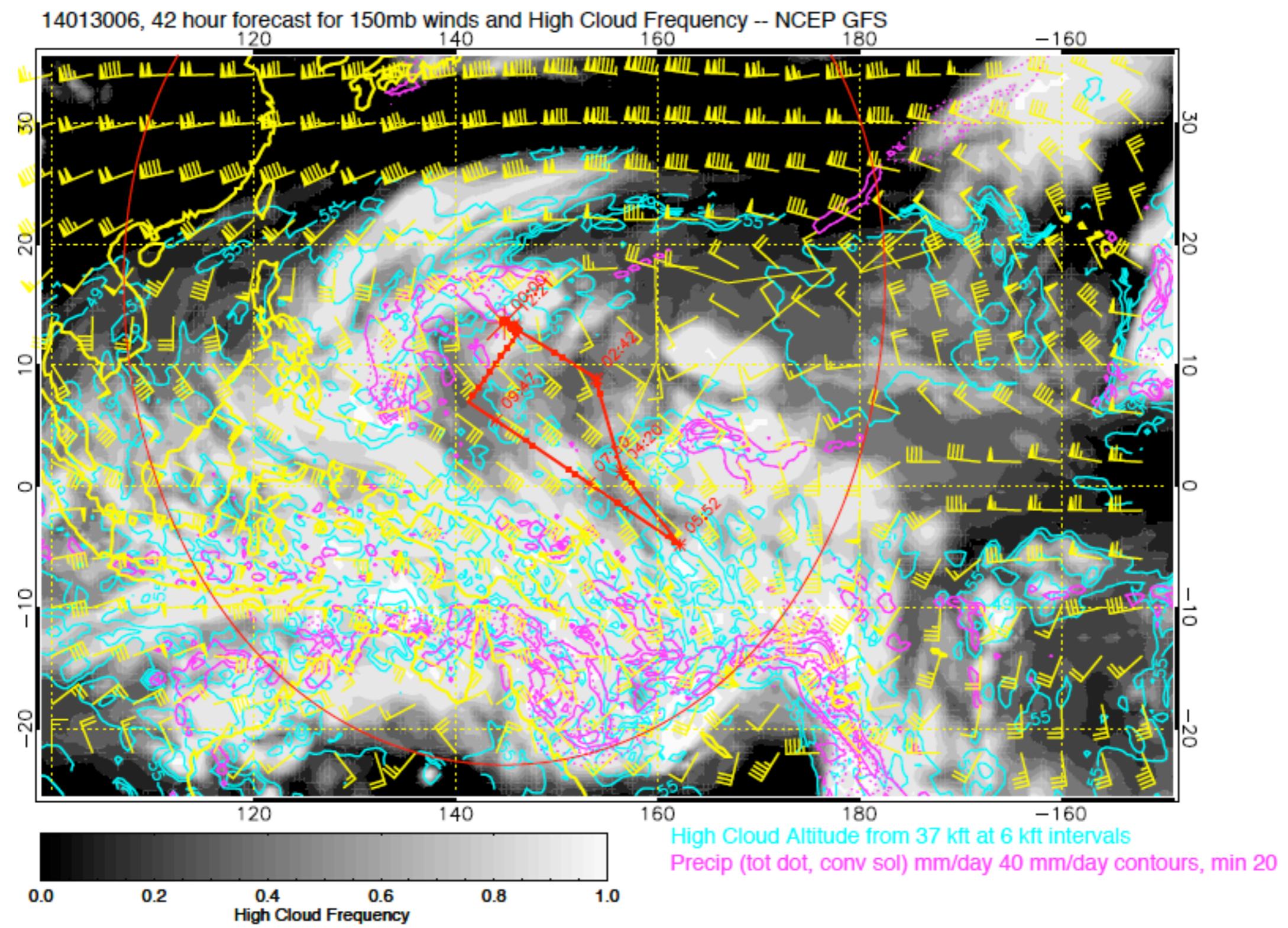
'Thu enroute' condition (GEOS5):
tropopause T & altitude on 2014-01-30, 06UTC
(01-30 Thu, 4PM)



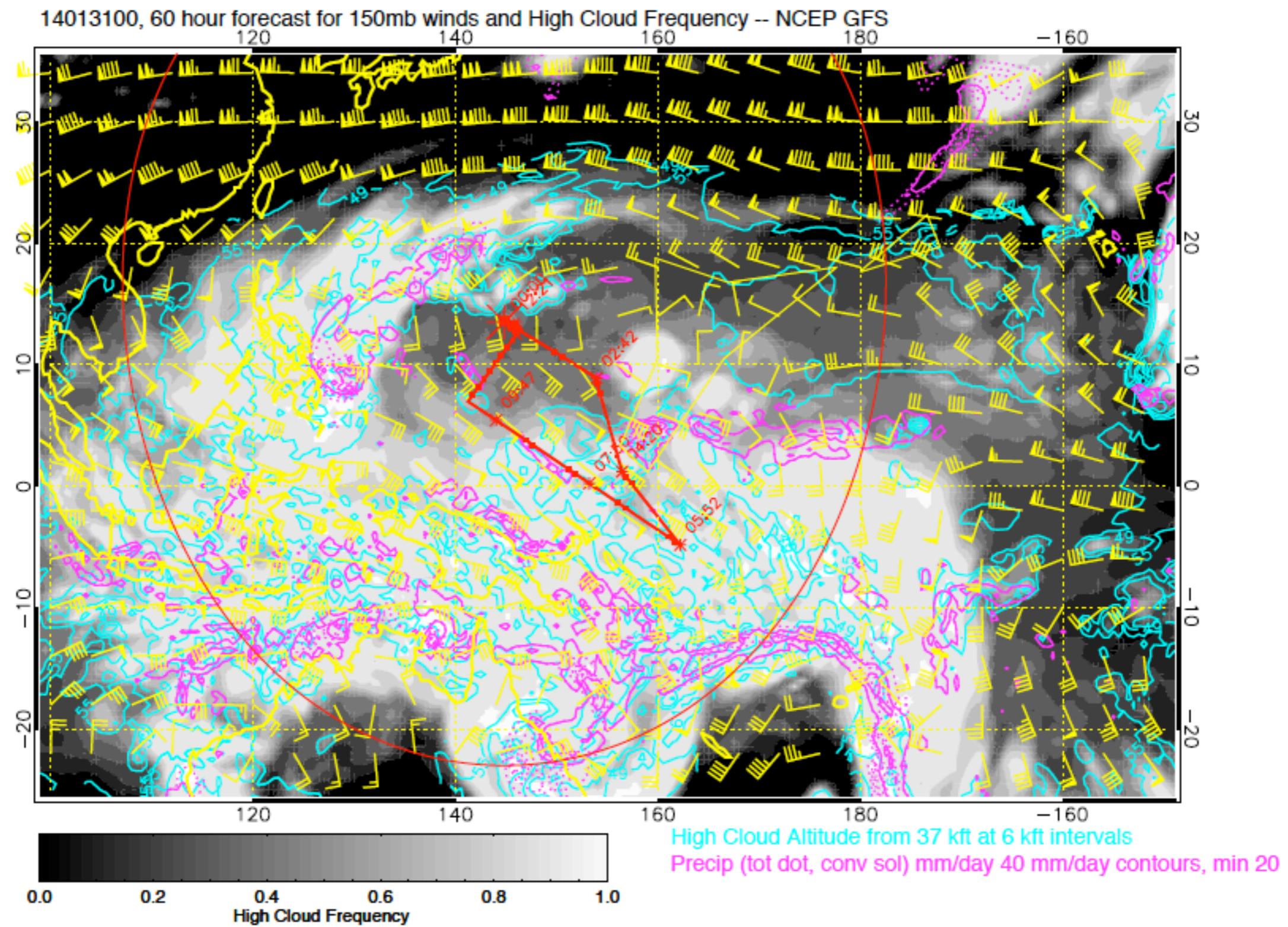
'Fri enroute' condition (GEOS5):
tropopause T & altitude on 2014-01-31, 00UTC
(01-31 Fri, 10AM)



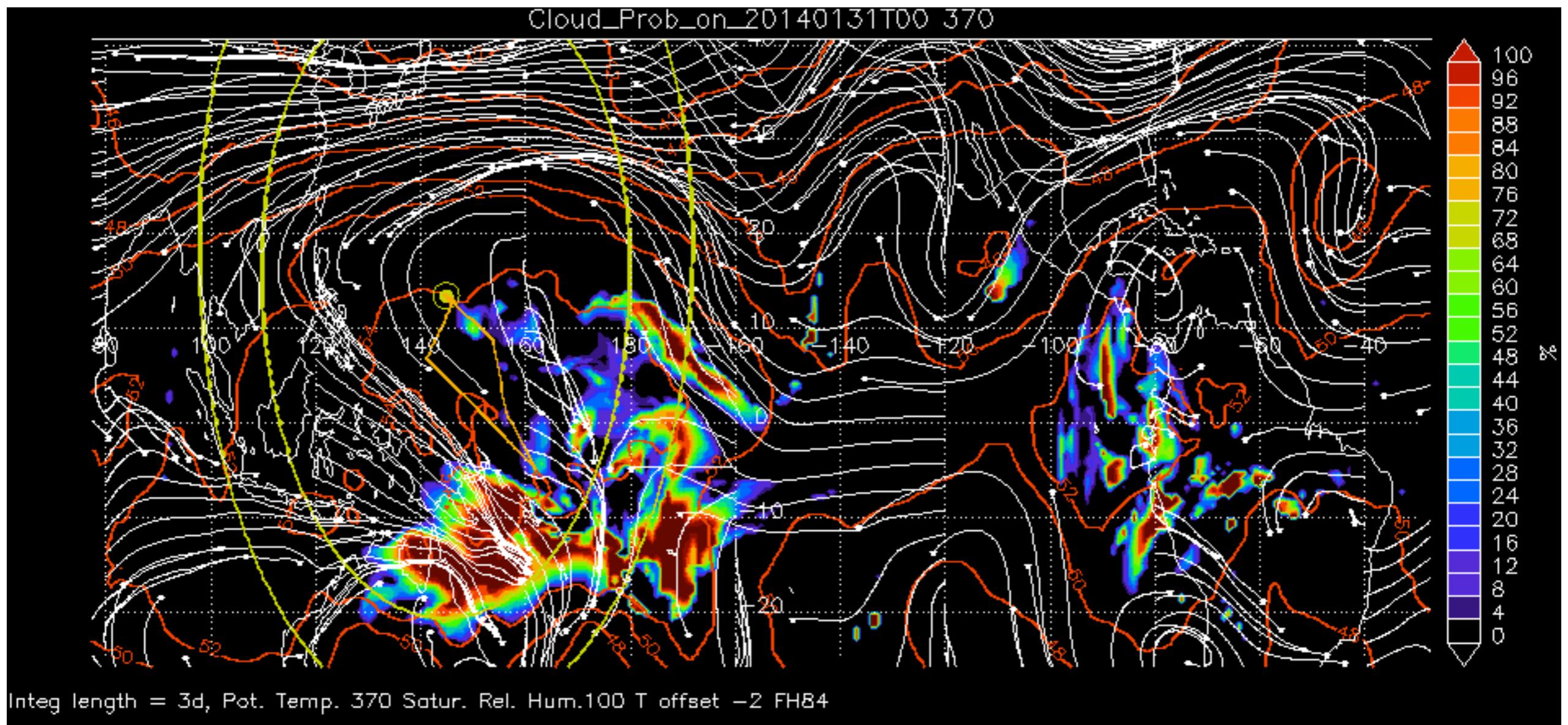
'Thu enroute' condition (GFS):
150mb winds & high clouds on 2014-01-30, 06UTC
(01-30 Thu, 4PM)



'Fri enroute' condition (GFS):
150mb winds & high clouds on 2014-01-31, 00UTC
(01-31 Fri, 10AM)



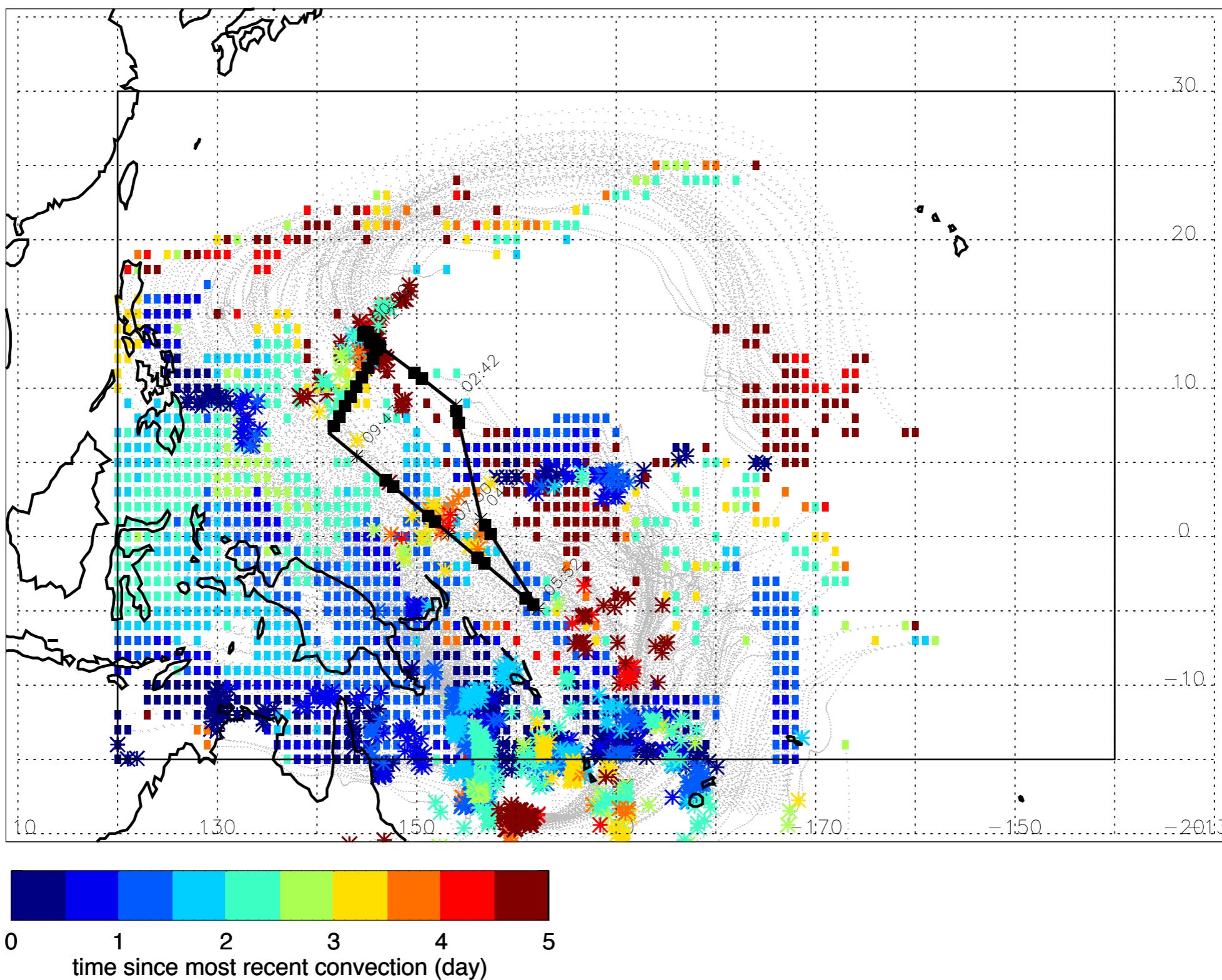
'Fri enroute' condition (trajectory model):
cloud probability on 2014-01-31, 00UTC
(01-31 Fri, 10AM)



'Fri enroute' condition (trajectory model): convective influence on 2014-01-31, 00UTC (01-31 Fri, 10AM)

Convectively-influenced 10-day back trajectory at 53 kft level from boxed region on 01/31/2014, 00Z

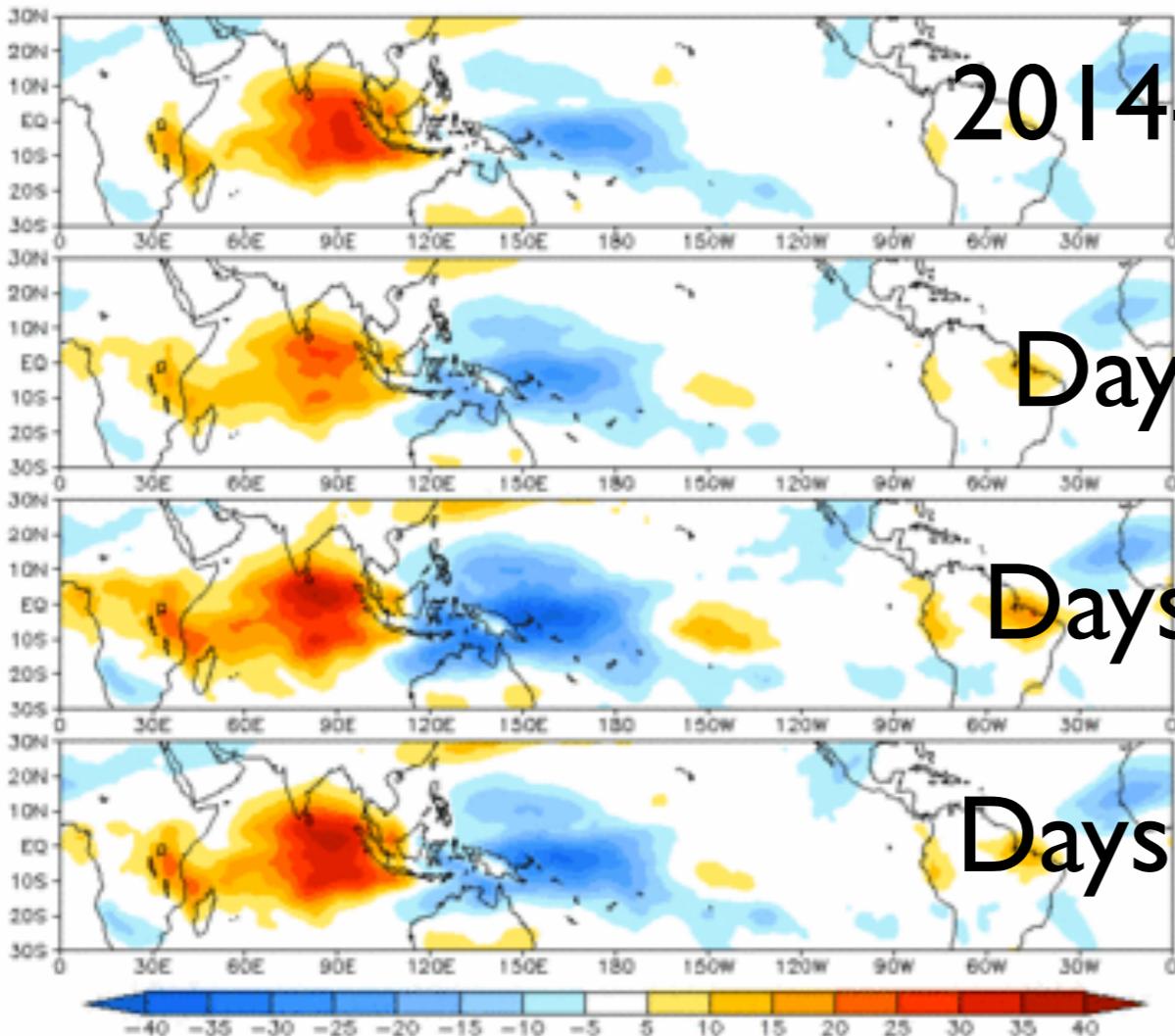
Fig. 2: Trajectories influenced by most recent convection (asterisks) between 0 and 5.0 days



MJO forecasts

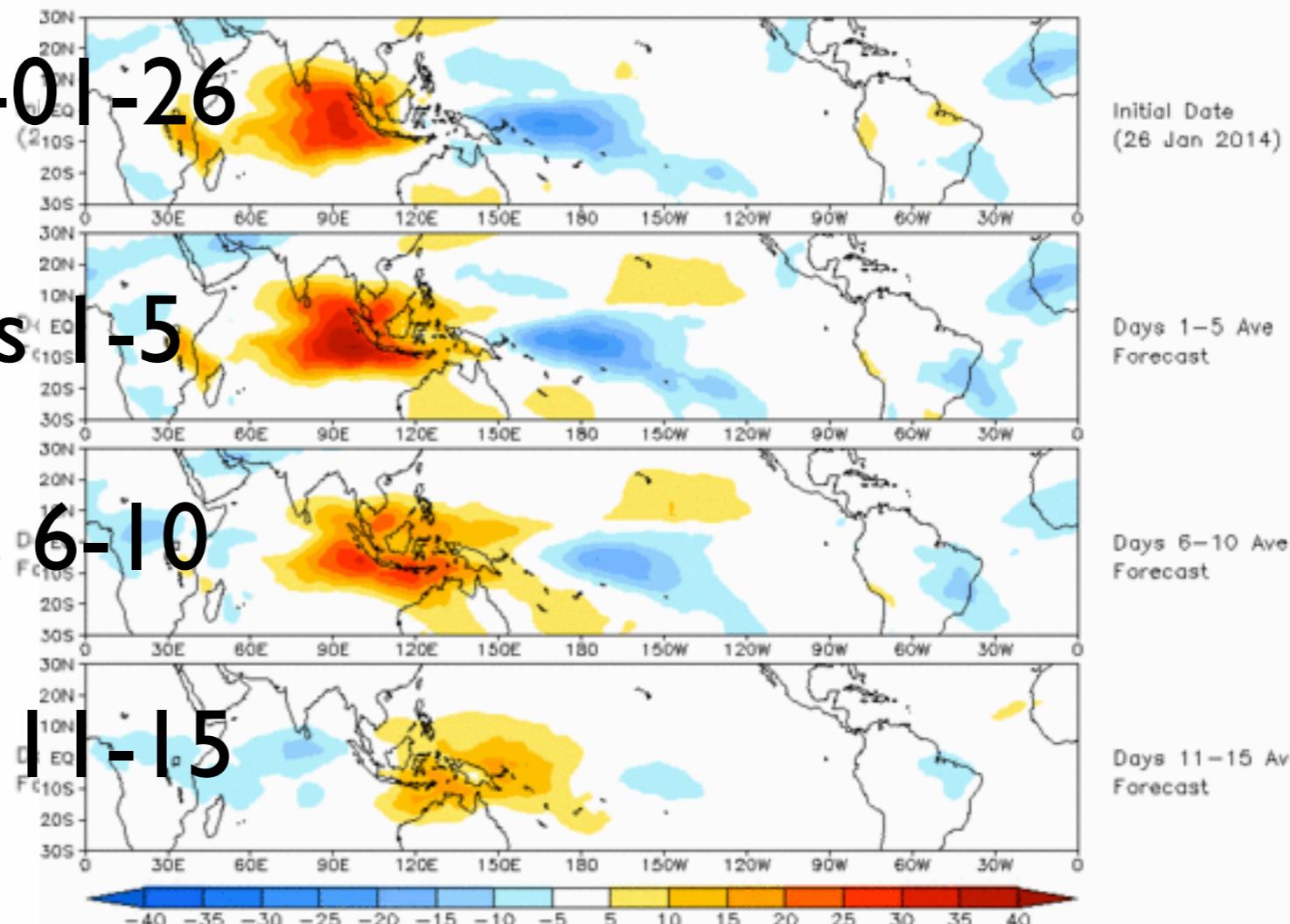
dynamical forecast
(GFS forecast data)

Prediction of MJO-related anomalies using GEFS operational forecast
Initial date: 26 Jan 2014
OLR



statistical forecast
(historical data)

OLR prediction of MJO-related anomalies using CA model reconstruction by RMM1 & RMM2 (26 Jan 2014)

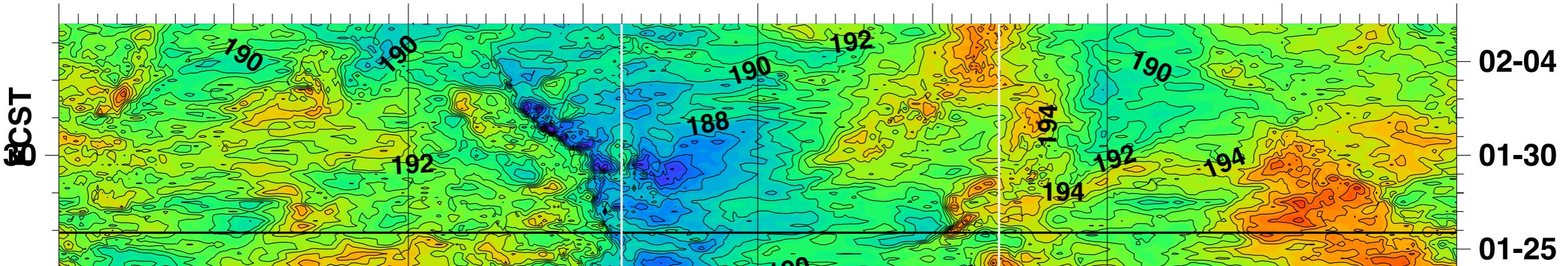


- dynamical models predict weak MJO signal to persist with no eastward propagation, but statistical forecasts indicate more coherent MJO signal with eastward propagation
- confluence of tropical waves
- MJO is forecast to remain weak during the next 1-2 weeks

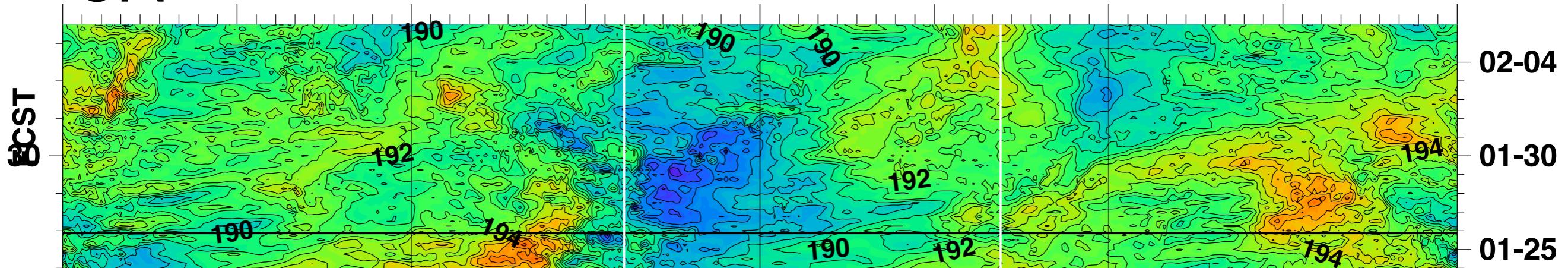
100mb T forecast

- cold pool Eward until Sat
- warming up

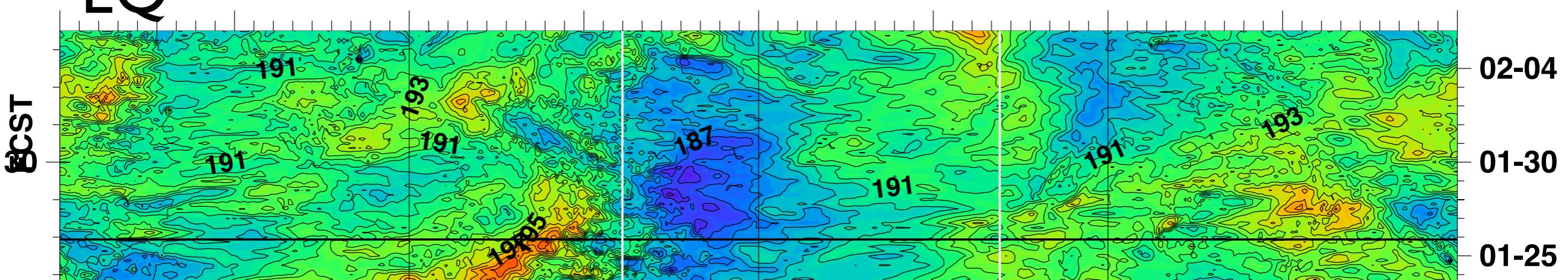
10N



5N



EQ



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